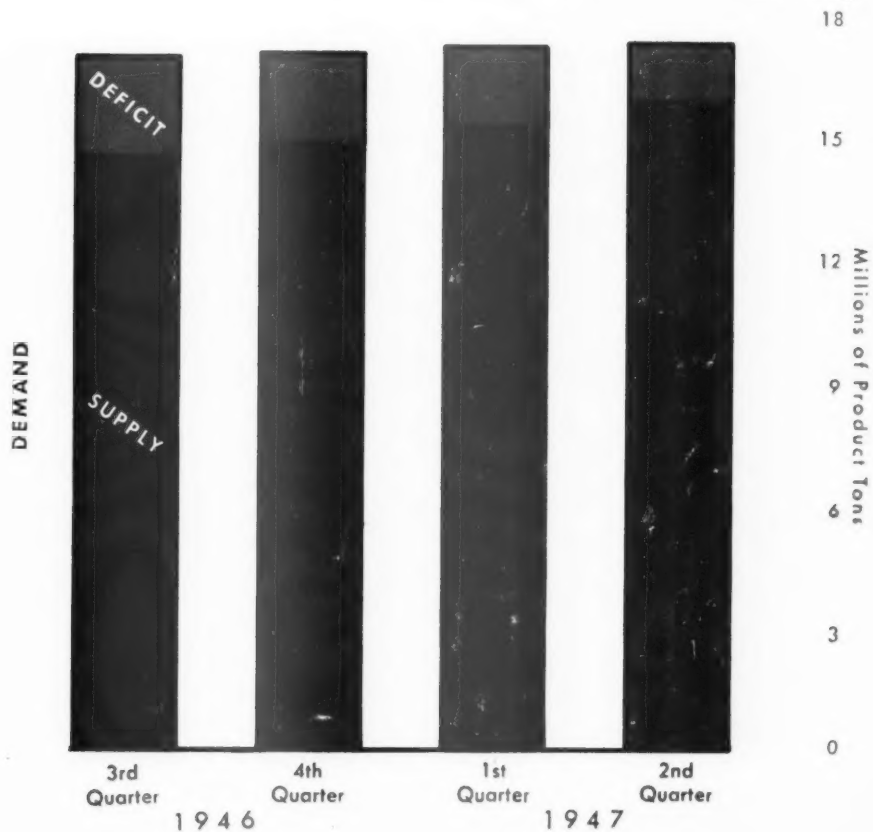


BUSINESS WEEK

SEPT. 28, 1946

THE STEEL PICTURE: TODAY AND TOMORROW

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*Report to Executives—"Hard-to-Get Steel: When Will There Be Enough?" (page 71)

BUSINESS
WEEK
INDEX

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The honeymoon is almost over

We've heard a lot (from government statisticians and others) about "enormous dammed up purchasing power". There is no such thing.

All the money savings in the nation wouldn't keep America's factories running—and Americans on payrolls—more than a few weeks. The only real purchasing power results from what a man *produces*, which he can then trade for what other men produce. That is why higher wages without higher production cheat all workers. Savings merely represent what some worker has produced and has not yet traded.

The higher the wage cost of what is produced, the higher its price has to be. By just that much *your purchasing power is reduced*.

The higher the price of what is produced, the fewer people there will be who can and will buy it. The fewer who buy it, the fewer workmen needed to make it . . . that means layoffs which sooner or later include you. And then *your purchasing power is gone*.

It is just simple arithmetic that the only way your purchasing power can be kept up is for you *and all workmen* to produce *more efficiently*. Yet how many politicians or labor leaders are honest enough with you to tell you that obvious truth?



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A development of
B.F. Goodrich
FIRST IN RUBBER



One rubber sandwich—coming up

A typical example of B.F. Goodrich development in rubber

EVERYBODY talked about it but nobody did anything about it. Street cars and subway trains were noisy because they couldn't be any other way. Metal wheels on metal rails—metal trucks, metal frames—all contributed to the frightful racket made by the old-fashioned cars.

Then a group of car manufacturers decided that something had to be done. They thought that rubber could be employed to reduce noise and vibration and increase passengers' comfort. They asked a number of rubber companies for suggestions—and B. F. Goodrich, out of its long experience

in reducing shock, noise and vibration with rubber, came up with the answer. It was a rubber sandwich for streetcar wheels—the girl in the picture is making one—the same way Joe makes a ham on rye at the drug store lunch counter. Rubber discs and metal plates are alternated to make 2 and 3-decker sandwiches that stand on edge inside the wheel. The wheels are built around these sandwiches in such a way that the car hangs from rubber—metal-to-metal contact between wheel and axle is eliminated. The rubber soaks up the shocks from the rough rails—gives quiet, smooth, comfortable riding.

From this rubber sandwich and other design improvements came a new kind of car to bring quiet, comfort and speed to millions of streetcar and subway riders. This is a typical example of B. F. Goodrich development in rubber that has brought so many improvements in products accepted as "standard", and so many new products that have contributed to the comfort, efficiency, economy and safety of American industry and the American people. *The B. F. Goodrich Company, Industrial Products Division, Akron, Ohio.*

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BUSINESS WEEK

Business Abroad.....	117
Figures of the Week.....	13
Finance.....	81
General News.....	15
The International Outlook.....	115
Labor.....	92
Marketing.....	47
The Markets.....	122
New Products.....	62
The Outlook.....	9
Production.....	58
Report to Executives.....	71
The Trend.....	124
Washington Bulletin.....	5

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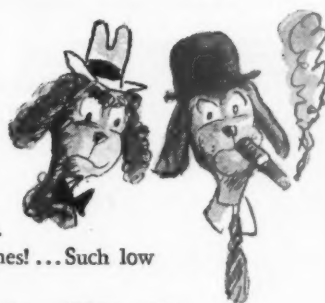
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BUSINESS WEEK • Sept. 28, 1946

The Company that went to the Dogs!

by Mr. Friendly



When Pennypacker, Inc. went to the dogs
the dogs simply weren't interested!...

They turned up their noses and slowly walked away.

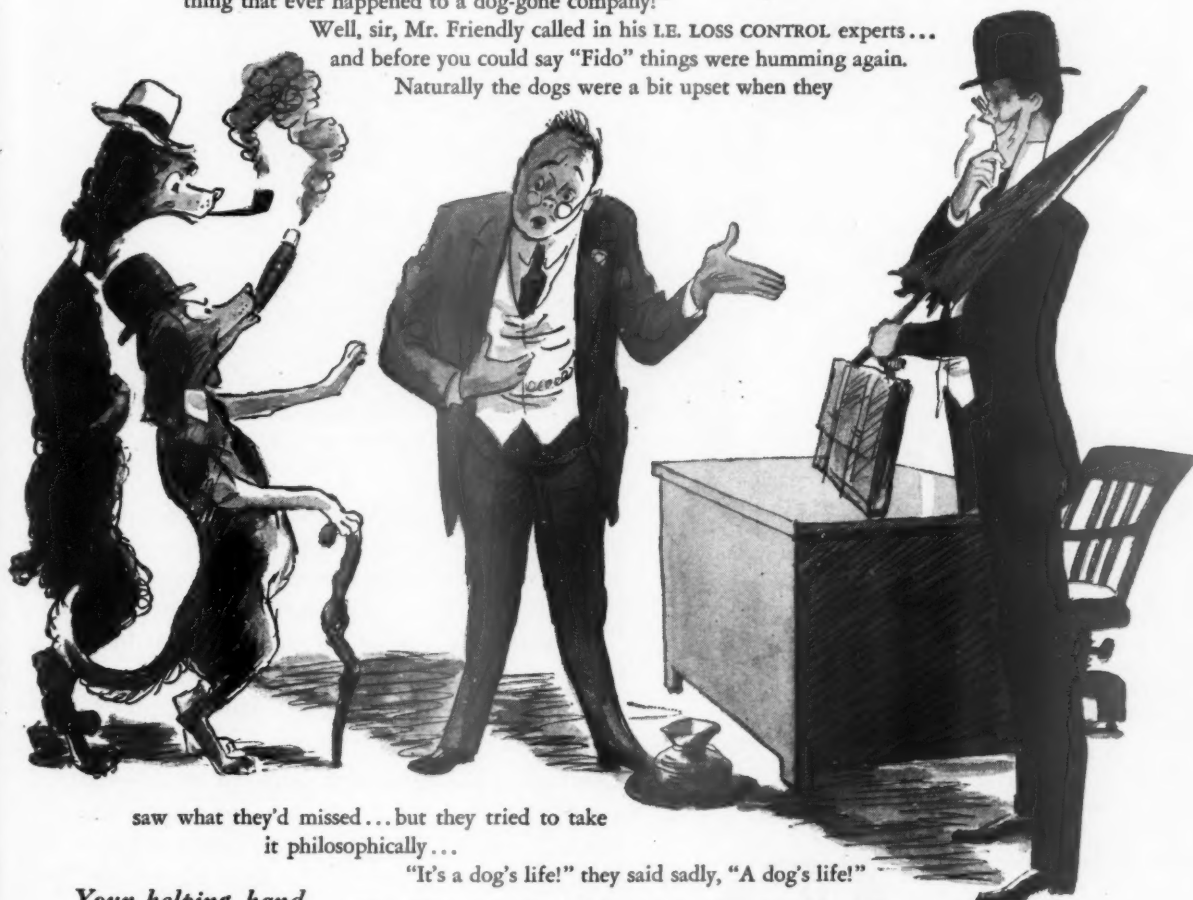
They said, "Such utter confusion! Such dangerous machines! ... Such low
production! ... No thanks!"

That was when Mr. Friendly, the American Mutual Man, dropped in ... "Listen, Mr.

Pennypacker," he said, "We'll show those snooty pups ... we'll help you get
organized ... help you cut down accidents ... increase production ... and it won't cost you one extra copper!
I.E., American Mutual's *Special I.E. LOSS CONTROL* Service*," he continued, "Is the greatest
thing that ever happened to a dog-gone company!"

Well, sir, Mr. Friendly called in his I.E. LOSS CONTROL experts ...
and before you could say "Fido" things were humming again.

Naturally the dogs were a bit upset when they



saw what they'd missed ... but they tried to take
it philosophically ...

"It's a dog's life!" they said sadly, "A dog's life!"

**Your helping hand
for better business!**



Tip: Write now for information on American Mutual's
I.E. LOSS CONTROL Service ... it's a special profit-producing service
that has helped many companies to actually reduce manufacturing
costs ... increase production and profits ... and improve worker morale!

Write American Mutual Liability Insurance Company,

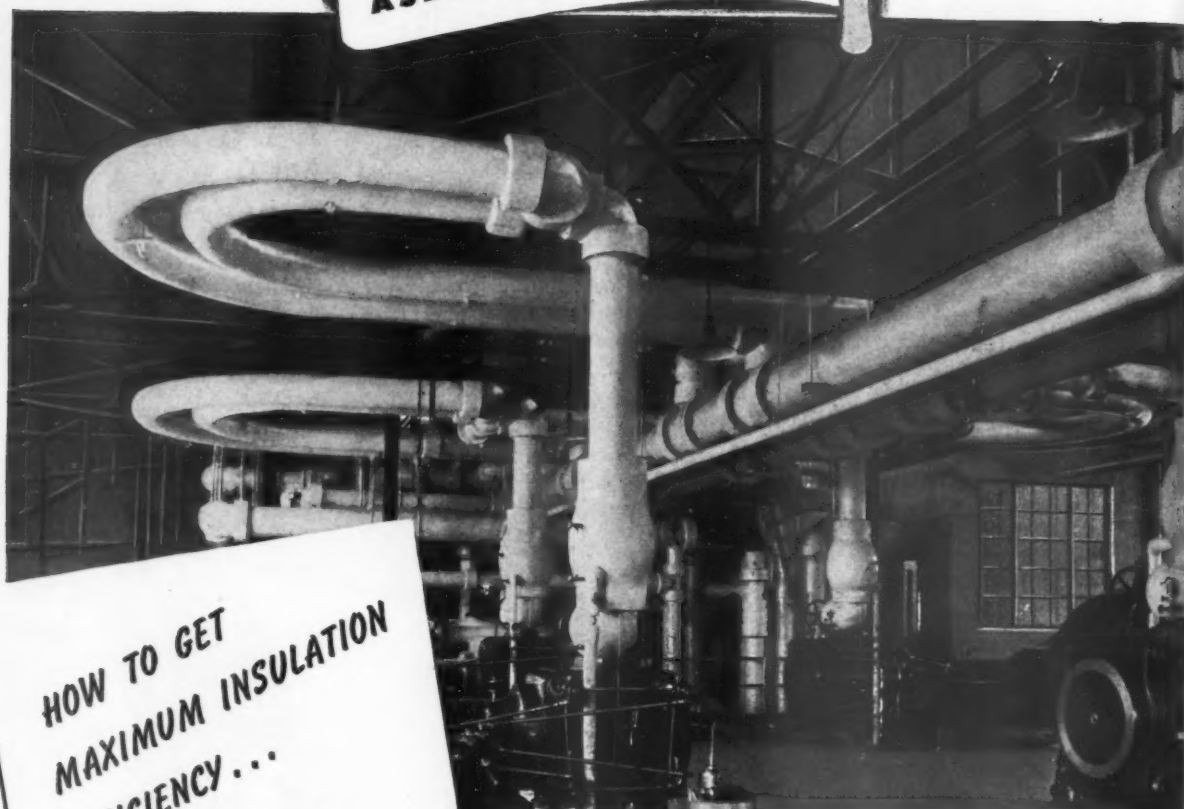
Dept. B-27, 142 Berkeley Street, Boston 16, Mass.

* Accident prevention based on principles of industrial engineering.

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WASHINGTON BULLETIN

PRICE-WAGE STALL

Prices have reached a plateau at which the Administration thinks it can stop them—if it can find the cunning to stall off a new round of wage demands. Substantially all the mandatory price increases written into the OPA law by Congress, and the farm price boosts demanded by the Dept. of Agriculture, have now gone into effect.

The Administration will not willingly abandon this promise of stability by accepting the general invitation to higher costs involved in a basic revision of wage-control policy. It will yield only what it is forced to by strikes too big to be ignored, and then grudgingly and by indirection.

Policy-makers dare to rely on such a rearguard action because they see the end in sight. They read recent business preoccupation with the possibility of a slump, perhaps late in 1947, as a clear indication that most of the inflationary pressure will have been dissipated by the time they run out of law next June.

End to Price Zoom

Since the beginning of the 18½¢ wage boosts which wound up the spring strikes, all the price curves have been streaking upward, with a spectacular sawtooth representing the July price control hiatus. After the relative stability of the later war years, it was easy to conclude that the furies of inflation had been turned loose and the cost of living would go on up like a homesick angel.

Actually, the jump from the price level of last spring to today's level was the result of three definite, measurable influences:

(1) The wage formula that came out of last spring's strikes, with its round of 18½¢ boosts, caused a general adjustment of OPA ceilings. This had turned the indexes upward even before the price law died, and the rise was substantially completed by the time the new law went into effect.

(2) On nonagricultural products, Congress wrote several types of mandatory price increases into the price-control extension law.

It required restoration of full margins to distributors of manufactured goods.

It required boosts in prices of imported goods to reflect high world prices resulting from breakdown of international controls.

It shot up textile prices by tying them to the price of raw cotton.

All of these mandatory increases have now been effected, except as cotton fluctuations change textile prices.

Congress thought it was also giving manufacturers a boost with the Barkley amendment, which purported to guarantee 1940 profit margins. But by the time it became law this had been so twisted by Administration sharpshooters, so loaded with alternate formulas, so hedged with red tape, that it is ineffective (BW—Aug. 17 '46, p21). So far no industry has formally asked for relief under the amendment, and only one—rice milling—has even bothered to start the ball rolling.

(3) Congress turned over policy control on agricultural prices to Secretary of Agriculture Clinton P. Anderson, who was in full sympathy with the price ambitions of the farmer. Anderson had his will in the higher ceilings placed on farm products after the price holiday.

But now Anderson has been convinced that he's had all he wants. This week he went on the radio to tell farmers that their year-old ambitions have been satisfied. Not only has parity been achieved, he said, in a speech that broke all department precedents, but prices of all crops are now high enough to support full production. Anderson has got religion.

MORE WAGE FINAGLING

The inflationary heat is not yet out of prices, the Administration well knows. If the controls went off, prices would go up. But the Administration believes it now has the legal power and the administrative unanimity to hold the lid—if it can stall off major wage increases.

That's why the Administration perpetrated its undignified finagle on the maritime issue (BW—Sep. 21 '46, p116). That's why it will resort to one finagle after another and endure whatever strikes befall rather than formulate a neat revision of wage policy. A new policy would immediately reopen the thousands of union contracts incorporating an escape clause effective any time government wage policy changes.

For the rest of this year, the government will rely on pure finagles, trick deals like the maritime arrangements. This will mean the end of the present Wage Stabilization Board. Labor and industry members are already prepared to quit. Needled by N.A.M. and the U. S. Chamber of Commerce, industry members have submitted their resignations.

But collapse of NWSB won't daunt the White House. It will put ringers in place of members who quit, or perhaps will substitute a government administra-

tor or a public board. All that's needed is somebody to disapprove wage increases and thus satisfy the requirements of the price-control law, which keeps the real ceiling on wages.

Security vs. Pay

The real test of Administration resourcefulness will come in February, when steel wages, always the bellwether, come up for negotiations. The Administration realizes that, by then, it will need more than tricks.

Its hope is that, influenced by several months of relative price stability and scared by depression talk, workers will be more interested in concessions increasing job security than in hourly wage rates. Semiofficial surveys among union members suggest that such an attitude is already developing.

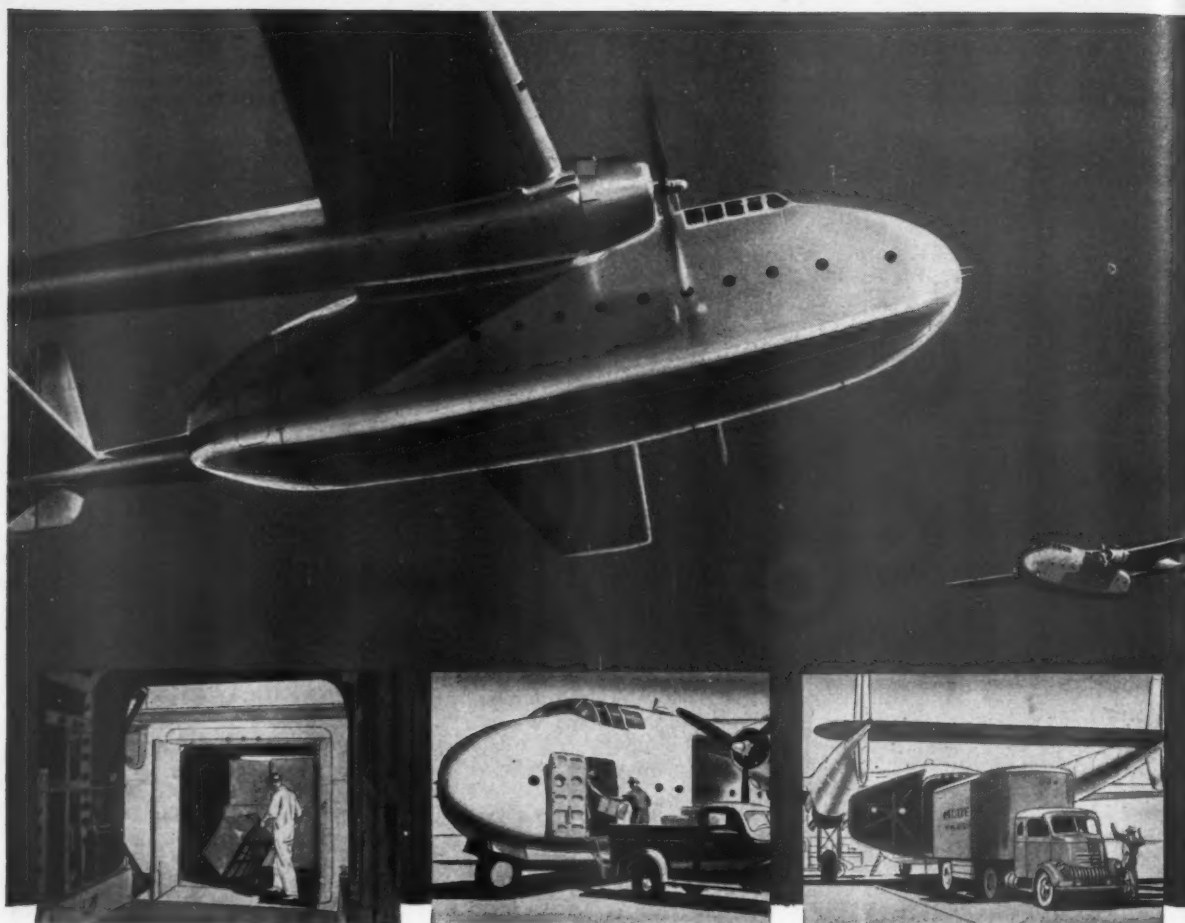
The aim will be to point collective bargaining toward issues like annual wage guarantees and health insurance benefits, which have less direct effect on prices than do pay scales.

Bright young men in OWMR are urging Reconversion Director Steelman to lay the groundwork now for such an approach to the February crisis. Unsuccessfully so far, they are recommending a course of prebargaining mediation—appointment of mediators who would start nurse-maiding the impending dispute as early as the steelworkers' December strategy conferences. Such a device might enable the government to influence the bargaining agenda before either company or union commits itself to a rigid set of demands.

END OF A CYCLE NEAR?

No one around the White House is completely confident that such a delicate and intrinsically temporary diversion of labor pressures can be successfully effected. But a temperate hopefulness is based on the conviction that we are nearing the end of the inflationary cycle. There are already signs of this in the stock market, and they are due to appear before many months in soft goods and in hard goods before the end of 1947.

Washington takes the intimations of a late '47 or early '48 slump much less seriously than does the business community. Advisers closest to the President anticipate merely the sort of sag that you find out about from statistics, signifying little more than a restoration of producer competition. Nowhere among them is there any feeling that advance protective steps need be taken against such a sag. Rather, the inclination is to carry deflationary meas-



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The Packet was designed to carry weapons or vehicles, paratroops, supplies or wounded. Its versatility has been tested and proved by the Army Air Forces.

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ures of the budget-balancing type right through, conserving federal resources in case deeper trouble appears later.

Choice of Worries

Some warnings are reaching the Administration that consumer resistance to high prices coinciding with achievement of large-scale production and accumulation of excessive inventories could, if coupled with foreign reaction to a downturn here, produce a disastrous downward spiral. But these warnings are coming from sources discredited by false predictions of wide unemployment in late 1945. The dominant view is that there is enough war-generated steam left in the economy to prevent such a collapse.

Some of the President's more conservative advisers, indeed, seem almost to welcome the prospect of a brief sag as a corrective to the shortages and dislocations associated with what they consider artificially full employment today. They are more worried about the strain of expanding industrial and agricultural plant to reflect the needs of an economy running perpetually in overdrive.

RESEARCH MEN MOVE OUT

Hamstrung by legislative and budgetary strictures, Dr. Rensis Likert and five other staff members of the Bureau of Agricultural Economics have moved in a body to the University of Michigan.

As chief of BAE's Division of Program Surveys, Likert developed research techniques productive of such eye-opening findings as were revealed by its survey of liquid assets (BW—Aug. 24 '46, p. 19).

During the war Likert's unit greatly expanded the scope of its operations, undertaking research into "public attitudes" for other government agencies, including the Office of War Information, Army, Treasury, and Federal Communications Commission.

Looking for Greener Pastures

Suspicious of the social implications of some of Likert's work, the last Congress fenced in his field of operations and cut his budget, in common with other BAE divisions whose work had been far afield from agriculture. Secretary Anderson did not protest.

Under a new name (Division of Special Surveys) and new management, the BAE unit will operate strictly within the scope allowed by Congress.

At Michigan, Likert and his staff expect to enlarge on their BAE operation, train graduate students in their techniques, and take on research contracts from government agencies, industrial concerns, and marketing organizations willing to release their findings.

ALLOCATION HERE TO STAY

Success of Publicker Industries, Inc., in obtaining a temporary injunction restraining the Dept. of Agriculture from adopting a historical basis for grain allocation (page 17) is a blow to old-line distilleries, but will not have any broad effect on other allocation programs.

Fats and oils have long been allocated by the department on a historical basis, but newcomers are supplied from a pool for this purpose. CPA is reasonably confident that it is in the clear on its allocation programs for such ma-

Harriman Appointment Pleases Almost Everybody

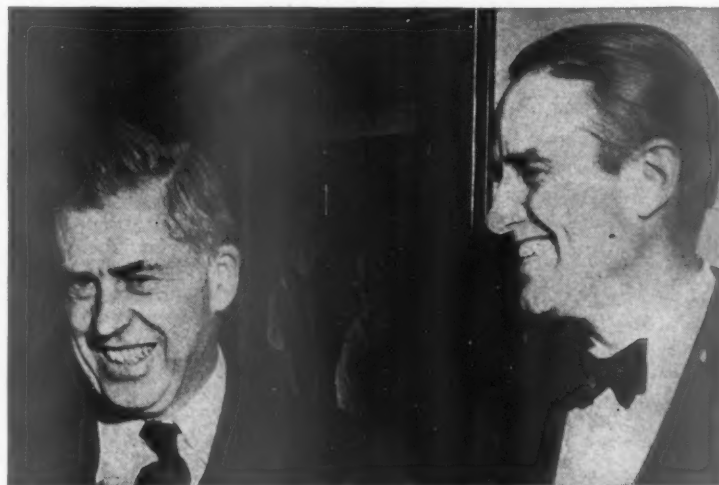
Why was the appointment of W. Averell Harriman as Secretary of Commerce universally regarded as a natural?

(1) He's a businessman, which, after all, is desirable if not essential in a Secretary of Commerce. Of course, Henry Wallace was, too, though most people outside of the Corn Belt didn't know it.

(2) Harriman is a sort of New Dealish businessman—a former NRA official, graduate member and sometime chairman of the Commerce Dept.'s Business Advisory Council set up in 1933 in an attempt to take the sting out of the New Deal for businessmen.

(3) Harriman is an open supporter of the Byrnes foreign policy and his appointment helps to quiet the international repercussions of the Wallace incident.

(4) At the same time, his appointment avoids a direct slap at Russia because Harriman has a long record of business and political relations with the Soviets. In 1925 he negotiated a manganese contract which was the first major foreign concession granted by the Bolsheviks, and during the war he was head of the Rus-



From Left to Right.

sian supply mission and later Ambassador to the U.S.S.R.

The one thing that Harriman's appointment fails to do for President Truman is to repair the damage done to the Democrat-Liberal coalition by the Wallace ouster. This leaves it up to the Democratic National Commit-

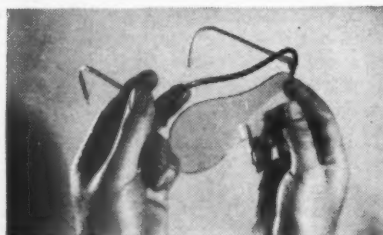
tee to rekindle the guttering enthusiasm of the left. Committee Chairman Hannegan is trying to find a formula by which the committee could sponsor—without indorsing—a series of campaign speeches by Wallace and by Sen. Pepper, who is moving in on Wallace from the left.



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terials as lead, tin, and rubber. Although they make general use of base dates, these have been moved steadily forward so that they reflect current capacity fairly accurately.

TRADE IS A WEAPON

There's a growing opinion in the State Dept.—probably reflecting the current tension—that tight statutory control over foreign trade is a necessary adjunct to political and military weapons in pursuing a tough line with Russia. Although many businessmen feel that free and profitable trade with the Soviets is possible, no matter how fierce the diplomatic battle for control of Europe, there's a fear among the diplomats that Russia is unduly strengthened by such sales and technical service agreements as the Russians are now working out with several large U. S. capital goods producers (BW—Aug. 10 '46, p. 5).

Congress may be asked next year for legislation funneling foreign trading through the State Dept., with blanket exemptions for trade in politically quiet areas.

CAPITAL GAINS (AND LOSSES)

Army Air Forces' budget estimates for next year are getting a cold eye from War Dept. budgetary officers. One more reason, say AAF men, why the air arm should be independent.

—Business Week's
Washington Bureau

THE COVER

The race to make steel supply match demand will not be finished nine months hence.

Supply will be catching up gradually though, as the cover chart plainly shows. The gap between supply and demand in the third quarter of 1946 will be half closed by the time the second quarter of 1947 rolls around.

A full explanation of why steel is scarce today, and what the prospects are for this important industrial material becoming less scarce, is to be found in a Business Week Report to Executives, "Hard-to-Get Steel" (page 71).

A separate part of the problem—the effects of price control on production of certain critical steel items—is fully explored in The Trend (page 124).

The Pictures—Acme—7, 18, 20, 22, 41, 92; British Combine—15, 20; Int. News—60, 100; Harris & Ewing—84; Wide World—117; Reni—16.



Not from trees

MODERN shingles are manufactured—not grown. And for all the new materials, heat is used in the processing. Which means that roofing manufacturers use American Thermometers.

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BUSINESS WEEK • Sept. 28, 1946

THE OUTLOOK

BUSINESS WEEK
SEPT. 28, 1946



Don't look for prices to fall nearly as far as they did in 1920-21, even if it develops that we are following a similar postwar pattern.

Prices haven't gone nearly as high as they did after the last war, hence haven't as much room to fall. Moreover, industrial prices are up very little, relatively, the big gains being in farm products.

In the case of manufactured goods, there was a big spread between costs and prices after the last war. This time, there just isn't.

Farm prices have the government support program under them.

Finally, consumer shortages are much greater than they were after the last war, and consumer purchasing power very much larger.

Students of the business cycle will tell you—six, eight, or ten months from now—how easily we should have been able to read the road signs along the way.

Business statistics are vastly more plentiful and more refined than they were in 1919 and 1920. Just about all of them point to a continuation of excellent business (Report to Executives; BW—Aug.24'46,p45).

The fact remains that the 25% drop in stock prices registers one vote to the contrary. (We forgot to take stocks seriously in 1919; stocks went down 18% in seven months while commodities climbed 18% to their top.)

Aside from stocks, there is little today to indicate a business recession. Even the whirlwind inventory accumulation can be brushed aside—unless it is continued too long (BW—Sep.21'46,p10).

Many business analysts in 1919 and early 1920 figured that we were on a permanently higher price level.

By November, 1919, industry complained of manpower shortages and scarcity of materials. This despite a steel strike that started Sept. 22, a crippling coal strike Nov. 1, and a stock market break.

There were buying scrambles at both wholesale and retail levels. Stores reported bare shelves, textile mills sold months in advance.

In April, 1920, prices resumed their uptrend after some hesitancy in March. U. S. Steel was booked ahead solidly to the middle of October.

The Federal Reserve Board (which had several times stiffened money rates to curb speculative use of credit) hoisted a timid storm signal in May, reporting scattered retail price reductions during the month.

Then followed the "readjustment" in prices and industrial activity.

Prices now come much closer to being on a "permanently higher level" than they did in 1919 and 1920

The strength of organized labor, the rigidity of wage scales take care of that. Wages won't go down much, short of a major depression.

In 1920, however, some wages were down 20% to 25% by the year-end. Today, if prices were to sink below costs, it would just about be a choice of running at a loss or closing down the plant. Wages wouldn't give.

This is a factor which could intensify unemployment with resultant curtailment of consumer purchasing power.

One segment of our present price structure can be washed out—and without too much pain. This is the hidden price rise.

Resistance to inferior merchandise already is having some effect. (And

THE OUTLOOK (Continued)

BUSINESS WEEK

SEPT. 28, 1946

this will never show up in the official price indexes.) The reason this washing out of hidden prices doesn't hurt is that it doesn't cause any reductions in production, employment. The manufacturer simply shifts his output into better merchandise.

But competitive pressure on standard lines would be another story.

Construction shows no sign, so far, of stumbling over higher costs.

August figures, the latest available, reveal a continuation of the rise. The value of the month's total building topped a billion dollars. That's about \$56,000,000 above July, previous postwar top, and a rise of nearly 140% from a year ago.

Industrial construction is trailing housing, due to the order freezing "nonessential" projects. Nevertheless, it shows steady gains.

This is in contrast to the 1919-20 building boom which was snagged almost before it got started.

By July, 1920, the Federal Reserve Board noted declining construction activity due to (1) high building material prices, (2) rising labor costs, (3) difficulties in transportation, and (4) inability to arrange financing, especially in the case of residences.

Before December rolled around, cancellation of lumber orders was extensive and prices were tumbling.

The relation of the country's liquid assets to prices is much healthier now than after the last war, which bolsters business prospects.

Prices of manufactured goods went up 110% from 1914 to 1919; in the same period liquid assets somewhat less than trebled.

This time prices of manufactured goods have gone up only 30%, whereas liquid assets of corporations and individuals have more than trebled.

In short, we have a little more money saved up with which to buy than we had after the last war, and it will go more than three times as far in terms of manufactured product prices (BW—May 18 '46, p9).

Farm product prices are more vulnerable than those of manufactures.

Agricultural prices are up three times as much as factory products.

But, even here, there are saving factors. The farmer is a lot better off financially than he was in 1919. The government has promised to support prices at 90% of parity. The war has wiped out surpluses.

On top of all that, foreign markets aren't likely to vanish like they did in 1920. Government policy after World War I was deliberately to discourage exports on credit, except for the barest relief requirements.

World relief will not be quite the outlet for American crops that had once been anticipated.

Crops abroad have been improving steadily. It is unlikely that the United States will be called on for all of the 250,000,000 bu. of wheat originally earmarked for relief exports.

Rice-eating nations will fare better in 1947. The world crop is up 10% this year over 1945, although 5% to 10% below the prewar level.

Improvement is sufficient, however, so that U. S. consumers already have been allocated more from the domestic crop for the fourth quarter.

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The Market that has Everything!

QUANTITY!

HALF THE NATION'S POPULATION lives in these 13 states served by the Pennsylvania Railroad.

QUALITY!

60 PER CENT OF ALL INCOME TAXES come from these 13 states and District of Columbia.

DIVERSITY!

103,593 INDUSTRIES—or 56 per cent of the total—are in these 13 states.

OPPORTUNITY!

THE GREATEST DEMAND is here—backed by 61 billion dollars in bank deposits!

...so if you're planning a New Plant
"DO IT ALONG THESE LINES!"

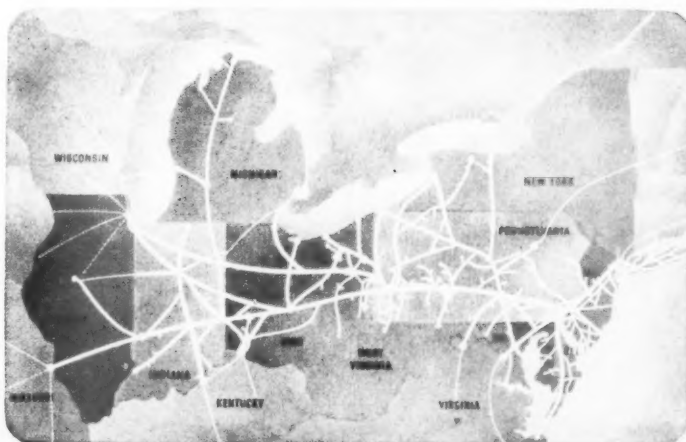
ADD TO THE MARKET ITSELF—

- The best transportation, via the shortest East-West rail route
- The most extensive pickup-and-delivery service
- More than 1300 passenger trains a day
- Direct service to Atlantic and Great Lakes Ports
- Fine access to main highways
- Abundant natural resources
- Plenty of labor
- Favorable taxes

**PENNSYLVANIA
RAILROAD**

1846  1946

ONE HUNDRED YEARS OF TRANSPORTATION PROGRESS



For available buildings and sites consult Pennsylvania Railroad Industrial Agents in Chicago, Indianapolis, Pittsburgh, Philadelphia, New York.

He Thumped a keg...and helped your life



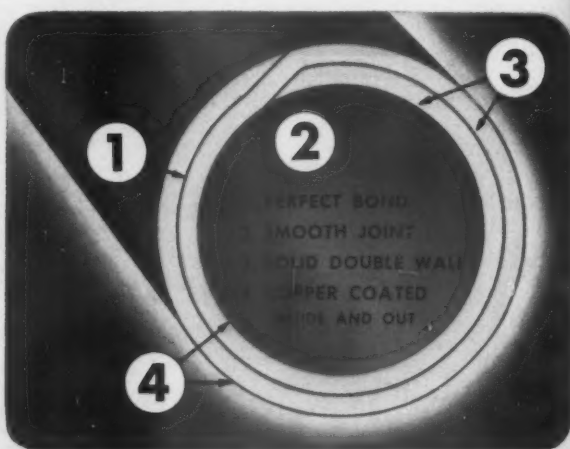
1. WHEN LEOPOLD AUENBRUGGER thumped wine kegs in his father's inn, he learned how to gauge liquid in a container. Later, as a doctor, he applied this ability to tapping human chests. From this "percussion" method of diagnosis was born, in 1819, the first stethoscope . . .



2. TODAY YOUR DOCTOR relies on the stethoscope. By carrying sounds from heart and lungs this slender tube serves as a real "life-line" in giving early warning of possible trouble. Less dramatically, but no less importantly, Bundyweld Tubing serves as a "life-line" for modern industry . . .



3. DOCTORS' CARS and yours, too, operate at top efficiency because of Bundyweld Tubing. It carries fuel, oil, vacuums and hydraulic fluids in motor cars . . . refrigerants in cooling units . . . gas in modern ranges. Exclusive production methods give Bundyweld marked superiority.



4. BUNDYWELD IS DIFFERENT from other forms of tubing because it has a solid, double steel wall, copper brazed throughout and copper coated inside and out. It is free from scale, closely held to dimensions, easily fabricated. Experts call it the outstanding tubing improvement of the century.

5. ENGINEERS AND product designers rely on Bundyweld. They use it in countless modern products—in everything from cars, trucks and tractors to gas ranges and refrigerators. Let Bundy Research and Engineering Departments show you how Bundy Tubing can aid your product. Also available in Monel and nickel. *Bundy Tubing Co., Detroit 14, Michigan.*

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FIGURES OF THE WEEK

THE INDEX (see chart below).

8 Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
*182.9	†183.0	183.4	168.6	162.2

PRODUCTION

Steel ingot operations (% of capacity).....	90.4	89.1	89.4	83.6	97.3
Production of automobiles and trucks.....	81,162	†88,888	91,360	10,570	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$16,568	\$16,386	\$17,734	\$10,224	\$19,433
Electric power output (million kilowatt-hours).....	4,507	4,521	4,444	4,019	3,130
Crude oil (daily average, 1,000 bbls.).....	4,775	4,773	4,836	4,528	3,842
Bituminous coal (daily average, 1,000 tons).....	2,117	2,188	2,011	2,053	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars).....	86	†87	84	78	86
All other carloadings (daily average, 1,000 cars).....	66	65	64	65	52
Money in circulation (Wednesday series, millions).....	\$28,453	\$28,499	\$28,365	\$27,777	\$9,613
Department store sales (change from same week of preceding year).....	+37%	+50%	+92%	+8%	+17%
Business failures (Dun & Bradstreet, number).....	19	31	17	23	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100).....	335.2	328.4	345.6	258.2	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	205.0	203.9	203.3	168.2	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	292.2	290.1	307.3	227.0	146.6
†Finished steel composite (Steel, ton).....	\$64.45	\$64.45	\$64.45	\$58.27	\$56.73
†Scrap steel composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.48
†Copper (electrolytic, Connecticut Valley, lb.).....	14.375¢	14.375¢	14.375¢	12.000¢	12.022¢
Wheat (Kansas City, bu.).....	\$1.96	\$1.95	\$1.94	\$1.63	\$0.99
†Sugar (raw, delivered New York, lb.).....	5.57¢	4.48¢	4.20¢	3.75¢	3.38¢
Cotton (middling, ten designated markets, lb.).....	37.15¢	36.58¢	35.84¢	22.46¢	13.94¢
†Wool tops (New York, lb.).....	\$1.330	\$1.330	\$1.330	\$1.330	\$1.281
†Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.).....	116.2	120.4	137.0	126.6	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's).....	3.15%	3.09%	3.03%	3.24%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's).....	2.60%	2.58%	2.51%	2.63%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	1½-1¾%	1½-1¾%	1½-1¾%	1.00%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	¾-¾%	¾-¾%	¾-¾%	¾%	¾-¾%

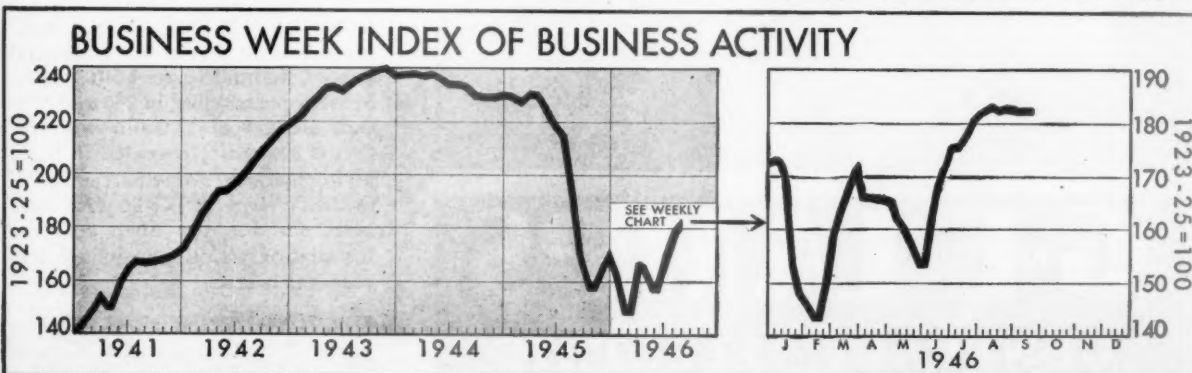
BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	39,767	39,619	39,170	39,017	23,876
Total loans and investments, reporting member banks.....	59,408	59,212	60,030	61,584	28,191
Commercial and agricultural loans, reporting member banks.....	8,925	8,765	8,416	6,124	6,296
Securities loans, reporting member banks.....	2,897	2,894	3,105	3,997	940
U. S. gov't and gov't guaranteed obligations held, reporting member banks....	40,525	40,595	41,571	45,473	14,085
Other securities held, reporting member banks.....	3,517	3,431	3,438	3,347	3,710
Excess reserves, all member banks (Wednesday series).....	930	810	890	1,039	5,290
Total federal reserve credit outstanding (Wednesday series).....	24,224	23,935	24,109	23,707	2,265

* Preliminary, week ended September 21st. † Revised.

‡ Ceiling fixed by government.

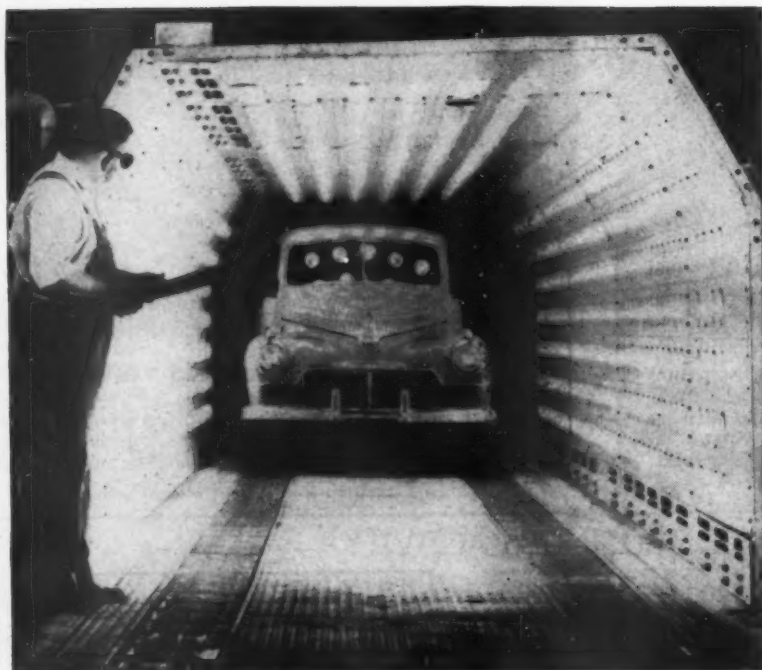
§ Date for "Latest Week" on each series on request.



Hot Tip on a Faster Finish!



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G-E LAMPS
GENERAL  ELECTRIC

DO YOU REALLY KNOW the many advantages infra-red radiant energy offers as a production tool in your plant? In all probability you'll be able to step up your output, save time and reduce cost by installing properly designed radiant ovens equipped with General Electric Infra-red Industrial Lamps.

Users in a wide variety of industries report these six important advantages of infra-red processing:

- 1. LOW FIRST COST**—*Equipment is simple and easy to install.*
- 2. FLEXIBILITY**—*Infra-red ovens are compact, movable, readily adapted to large or small production line operations. They utilize factory space to best advantage.*
- 3. INSTANT HEATING**—*Radiant energy creates heat on contact with work. Ovens can be turned on and off as required.*
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- 5. LOW MAINTENANCE COST**—*Minimum inspection and repair.*
- 6. COMFORTABLE WORKING CONDITIONS**—*No excessive heat around ovens.*

YOU'LL GET BEST RESULTS with G-E Infra-red Industrial Lamps by consulting a recognized infra-red oven manufacturer. He can give you the quality of oven engineering that is essential to successful operation.

GENERAL ELECTRIC offers a complete line of Infra-red Industrial Lamps, from 250 to 1000 watts. Most popular types, in 250 and 375-watt sizes, are (1) R-40 with reflector hermetically sealed in bulb, giving smooth, even distribution of radiant energy. (2) G-30 with clear bulb, suitable for open reflector installations. Both types have mechanical bases.

FOR FURTHER INFORMATION on infra-red applications write General Electric Lamp Dept., Div. 166-BW-9 Nela Park, Cleveland 12, Ohio.

Basing Points Survive

Chicago federal court denies conspiracy charge made by FTC, finds portland makers' basing-point system only way to stimulate competition. Surprise decision affects many other industries.

More brickbats have been heaved at the portland cement industry for its pricing policies than for all other reasons combined. Although they have clung doggedly to the belief that one price for all brands in any town at a given moment is the only policy that is economically feasible over the years, industry officials have practically given up hope of being able to convince many outsiders that they are right.

Last week they grinned from ear to ear when a majority decision by the U. S. Circuit Court of Appeals at Chicago vacated a cease and desist order entered more than three years ago against 74 portland cement companies by the Federal Trade Commission.

• **Astonishing**—Assorted collateral points were raised in the lawsuit. But what leaves the cement makers open-mouthed with astonishment is that, in effect, the court patted the big-league cement manufacturers on the head and affirmed that for all these years they have been preaching the true economic religion.

The court distinguished between two different types of pricing practiced in the cement industry. One type of company sets its base price at its mill, or at each mill if it has more than one. By absorbing part of the freight in markets farther from its mills than from competitors' mills, such a company meets the prices of more advantageously placed competitors. The other type of company—usually a smaller outfit—has no base price, but merely sets its price at the figure which equals the delivered price of the nearest basing-point mill with which it is in competition.

• **Phantom Freight**—The stamp of legality and economic virtue was conferred upon the basing-point pricing method in the court's decision. But it was withheld from industry members who simply add phantom freight to give themselves a better price than they could get if a basing-point manufacturer had a mill closer at hand. The court cited the Corn Products and Staley cases as precedents (BW—May 5'45, p22), and strongly hinted that if the FTC were to prosecute these phantom-freight cement companies individually, it would have an excellent chance of making its orders stick.

Cement users and government and

private critics hold that prima facie evidence of collusion is the fact that all brands of portland cement sell for exactly the same price wherever two or more brands come into collision in a market. If a dozen different brands are obtainable in Chicago today in carload lots in paper sacks at precisely \$2.71 a bbl., how—demand the carpers—can this coincidence arise unless the boys have had their heads together?

• **Old Question**—Cement marketers have doggedly insisted that this is muddled thinking. All portland cement (barring such few specialties as the industry

has developed for the exclusive sale of its developer) is identical. It must measure up to physical specifications and performance standards of the American Society for Testing Materials, and there is no advantage to the mill in exceeding these standards because engineers design in accordance with them.

Mill men have wearily inquired through the years just who among their customers would pay even a penny a barrel more for one brand than another. If customers can't be hornswoggled into paying a premium, then how could anyone hope to sell his portland cement for any price above that asked by the lowest competitor in the market?

• **Wider Meaning**—Because there are a good many products of other industries in this same situation, the Chicago decision has significance beyond portland cement. If it is sustained by the U. S. Supreme Court—no one doubts that the government will appeal—then the mul-



FOR SOUND MONEY AND SOUND TRADE

Pivotal figure in the vast engineering job of making the world's national and international monetary systems mesh is Hugh Dalton (above), British Chancellor of the Exchequer, here to attend the World Bank and International Monetary Fund meetings in Washington—and to listen to the views of U. S. financial leaders. As the man who holds the key to the Empire's trade network, Dalton is expected to play a vital role in unlocking world trade by such agreements as that reached by Britain and Argentina last week (page 117).



IN RECOGNITION OF SERVICE

Top-flight industrialists and businessmen—onetime members of WPB—pose for the camera in Washington after Secretary of War Patterson had decorated them with the President's Medal for Merit for "exceptionally meritorious conduct" in performing war services. They are (seated, left to right): James S. Knowlson, Stewart-Warner Corp.; Edward R. Stettinius, Jr., former Secretary of State; John Lord O'Brian, lawyer and WPB general counsel; Secretary Patterson; Sidney J. Weinberg, banker, who organized the industry divisions; Hiland G. Batchel-

ler, Allegheny Ludlum Steel; (standing) Theodore P. Wright, Civil Aeronautics Administration; John D. Biggers, Libbey-Owens-Ford Glass Co.; James S. Adams, Standard Brands; William E. Levis, Owens-Illinois Glass Co.; Charles E. Wilson, General Electric Co.; Joseph D. Keenan, Chicago Federation of Labor; Harold Boeschstein, Owens-Corning Fiberglas. Absent winners were S.K.F. Industries' William L. Batt, General Electric's L. R. Boulware, Hearst Corp.'s Merrill C. Meigs, Society of Independent Motion Picture Producers' Donald M. Nelson. The medal was awarded to Sidney Hillman posthumously for his work in WPB's Labor Division.

tile basing-point system is legally in, except in certain cases where phantom freight is made a part of the price.

The steel industry is a pioneer in the use of multiple basing points and has been subject to government attacks for years. Other industries that use or used the system include pulp, sugar, and lead. Pricing of automobiles is a variation of basing-point use, as prices are figured on a main plant base price even though assembled elsewhere.

The court agreed with the cement makers' long-standing claim that their one price per town system, instead of being a conspiracy to restrain competition, is the one way in which it is possible to maintain and stimulate competition in the sale of identical products. Coupled with the court's condemnation of pricing that includes phantom freight, this means that the court blessed the system that through competition lowers the price to consumers, but looked down its nose at the system that increases the price to consumers.

• **Contention**—Failure to use the basing-point system with freight absorption

where necessary would practically give each mill a little monopoly in whatever area it could serve at shipping costs lower than its competitors, by the court's reasoning. A natural result of upsetting the established method of pricing would be that small, relatively inefficient mills would have to be spotted in every market area in which a company wanted to sell.

As for the FTC contention that smaller cement companies conspired to follow the prices of big firms, the court said that "we would think that in all forms of industry . . . there would be found price leaders and price followers."

• **FTC Criticized**—The majority decision keelhaunched the FTC for "uncertain and indefinite terms" in its arguments. It charged that the commission findings which preceded the 1943 order were not clear, and that the brief supporting the order "does not dispel but increases the doubt as to what the respondents agreed to do as a result of the conspiracy charged."

The opinion also declared that the question whether any basing-point sys-

tem should be declared illegal rests clearly within the legislative field, and should be determined by Congress and not the courts.

Numerous other trade practices complained of by the FTC, including use of a freight rate book compiled by the Cement Institute, and restrictions on trucking, were brushed aside by the court as immaterial in this suit.

• **Implication**—Since the pricing system under attack was not considered unlawful conspiracy, it was unnecessary for the court to consider details of the methods used to make it effective, said the opinion. Implication of the court's attitude was that such methods could be made the subject of separate suits against the individual companies.

What effect the ruling will have on an antitrust suit against the cement companies which the Dept. of Justice filed in Denver in July, 1945 (BW-Jul. 7'45, p5), was cause for speculation in legal circles. The Denver suit asks an injunction under the Sherman Antitrust Act, making similar charges of conspiracy based on the same pricing practices.

Publicker Packs a Punch

Philadelphia company's aggressive tactics in beverage alcohol field interrupt Big Four's sweet dream of peace. Firm wins court injunction against Agriculture Dept.'s grain quotas.

The famous Big Four of the liquor industry are now the Big Five, and the new arrival, instead of making a poor fifth, probably has already squeezed into the No. 4 spot in the industry.

The newcomer—executives of the old-line companies are likely to say “parvenu”—is Publicker Industries, Inc., of Philadelphia, which, before the war, had only a toehold on the beverage alcohol market. The trade guesses that since the wartime ban on distilling was lifted, Publicker has shoved in ahead of Hiram Walker, the No. 4 of the old Big Four, and now is crowding National Distillers hard for third place.

• **Big and Tough**—The two top companies in the field—Schenley and Seagram—still have a big edge over the newcomer as far as scope of operation goes, but that gives them scant comfort. The liquor industry that sprang up after repeal was often a rough-and-tumble business in which price cutting and other hotly competitive practices played hob with profits. Recently, the top companies have been dreaming of more stability and better profits in the postwar era. Few of these dreams have allowed for the appearance of a big, aggressive newcomer, possibly with ideas of its own about prices and profits.

So far, Publicker's general attitude has done nothing to soothe the apprehensive old-timers. Not at all overawed at having crashed the select circle, it has refused stubbornly to put on its party manners.

• **Problem Child**—When other distillers recently patched up their perennial quarrels and formed Licensed Beverage Industries, Inc. (BW—Jun. 1 '46, p66), Publicker cold-shouldered the new organization.

When the Dept. of Agriculture, even more recently, tried to take account of the historical position of the various producers in figuring allotments of scarce grain, Publicker promptly sued on the grounds that it was short-changed (BW—Aug. 31 '46, p5). This week, a federal district court in Washington granted a preliminary injunction against Agriculture Secretary Clinton P. Anderson, giving Publicker at least the first round in the fight.

Until this month, the Dept. of Agriculture had been basing grain quotas entirely on present capacity, regardless of how the producers ranked in prewar days. On this basis, Publicker got as much as 20.5% of the monthly allotment, although it took only 2.8% of

the grain used in distilling in the period 1939-1941.

• **Strong Point**—For September, the Dept. of Agriculture proposed to refigure the allotment formula so that the prewar producers would get the benefit of a 500,000-bu. increase in the total amount of grain available for distilling. This was what touched off the legal fireworks.

Publicker's tremendous, war-expanded capacity is its strong point. Although it has only five U.S. distilling plants against a total of 49 for the old Big Four, it claims that its two top distilleries are the largest in the world.

At present, Publicker has two beverage alcohol subsidiaries. Continental Distilling Corp. makes Philadelphia blended whisky and Dixie Belle gin. Kinsey Distilling Corp. sells Kinsey whiskey and gin.

• **Sitting Pretty**—With their stocks of aged whiskies depleted by the long wartime drought, Publicker's competitors probably won't be able to stage a real attack against the newcomer for another

two years. Until then it will be current production that counts. And after that, Publicker will have built up considerable stocks of aged spirits on its own.

• **Outside Business**—Publicker also can count on doing a profitable business outside the beverage alcohol field. It is a big producer of chemicals and solvents. Before 1941 its business in basic chemicals and special branded lines, such as its Thermo antifreeze, accounted for more than half its income.

Publicker's history goes back to 1913, when it was incorporated as the Publicker-Ward Distilling Co. After prohibition, it switched to commercial alcohol and chemicals.

In August, 1933, just before repeal became effective, Publicker's subsidiary, Continental, got a permit to distill medicinal gin. This gave it a flying start when liquor sales became legal again.

• **Early Start**—Continental also got into the market early with a whisky under the brand name Sweepstakes, and for the first couple of years the Publicker group did a handsome business. After that it dropped back to a comparatively minor place.

From 1913 to 1946, practically all of the company's common stock was controlled by board chairman Harry Publicker and S. S. Neuman, the president. Last spring, the family sold 400,000 shares to the public, retaining 1,600,000.

SHELL DIGS—NOT FOR OIL

Recently Shell Oil Co. turned dirt farmer in a big way when it opened its 142-acre, \$500,000 agricultural laboratory and test farm (below) near Modesto, Calif.—the better to serve its best customer, the farmer, and to try out new petroleum products. Begun a year ago, the center, headed by Dr. Roy Hansberry (right), embraces a variety of crops and farm methods, is staffed by 30 technicians. Projects to be studied include weed control, plant therapy, and soil improvement.



Sellers' Warning

Court decision in A. & P. case is caution signal to many integrated setups. Consumer savings plea held no defense.

Legally, last week was a perplexing one for sellers. While the cement industry won a surprise verdict in a case involving the much-mooted basing-point system (page 15), the Great Atlantic & Pacific Tea Co. just as surprisingly found itself convicted of conspiracy by U. S. Judge Walter C. Lindley of the Eastern District Court of Illinois in Danville.

Few food men believed that mighty A. & P. would lose. The case had been kicked around in two other courts beginning in late 1942, and nearly founded twice when the Dept. of Justice's sweeping charges were called "inflammatory."

Findings—Judge Lindley enumerated A. & P.'s alleged transgressions thus:

(1) The Hartfords (president John A. and board chairman George) supposedly had built A. & P. into a monopolistic giant able to control great segments of manufacturing, distribution, retailing.

(2) A. & P. fixed prices.

(3) A. & P. ran competition out of business by allowing certain stores to operate at a loss, thus undercutting competing retailers. Such losses were "subsidized" by the huge profits accruing elsewhere in the integrated operations.

(4) A. & P.'s size and manifold operations enabled it to obtain buying and

quality advantages over lesser competitors.

(5) The foregoing practices were concealed from the public.

• Acco Attacked—Seemingly the Atlantic Commission Co. (A. & P.'s buying subsidiary in the fresh-fruit and vegetable fields) was immediately responsible for loss of the case—as it presumably was immediately responsible for its instigation (BW—Apr. 6 '46, p. 78). Said the court:

"Obviously the larger the volume Acco (Atlantic Commission Co.) handled for customers other than A. & P. the larger were A. & P.'s subsidiary earnings, inevitably reducing A. & P.'s costs and increasing its annual income."

"This, in turn, served to give A. & P.'s

retail units a preferential position in competition with other retailers, at the expense of the latter. . . ."

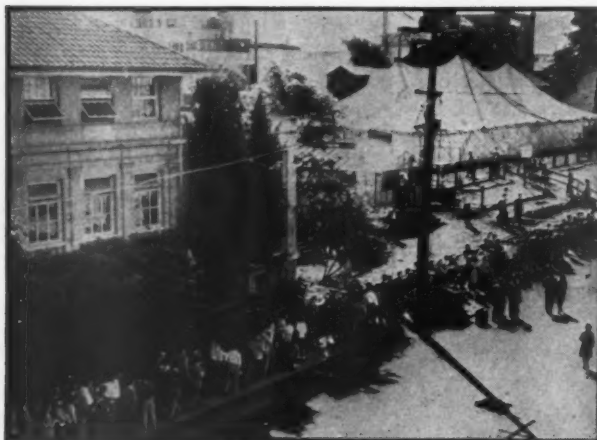
A. & P. will appeal the decision.

• More to Come—But to some foodmen, and to integrated setups in general, the Justice Dept.'s hands-down victory in what at first had been an admittedly wobbly case may well be alarming. Actions against Kroger and Safeway are still on the books. And Justice has announced that 105 other cases will come up. A flurry of investigations and voluntary alterations in discounts and advertising allowances is expected.

In its broadest aspects, the A. & P. case raises some vital considerations for all integrated systems catering to a mass market. Admittedly, A. & P. made very little retail profit (only \$2,857,000 on sales of \$1,354,018,000 in 1941). In effect, the company came close to selling to the consumer at cost, the real profits coming from such activities as manufacturing and packing.

• Competition No Plea—The A. & P. verdict makes it clear that the integrated operator who lures the consumer by rock-bottom prices had better be careful about how his competitors, and the Dept. of Justice, view such practices. A. & P.'s contention that it was passing along savings to its customers cut no ice with the court.

The mere existence of competition no longer is an airtight defense for a firm charged with conspiracy to monopolize. In its verdict against the Big Three of the tobacco industry three months ago (BW—Jun. 15 '46, p. 24), the Supreme Court held: "We agree . . . that such actual exclusion of competitors is not necessary to that crime [monopolizing]."



FOOTSORE ON THE ROAD BACK

Yesterday there were lines for nylons, butter, and cigarettes; today they're for plain commodities like soap and meat, as the ebb and flow of shortages continue to buffet the long-suffering consumer. Thus Cincinnati's Scherer Food Market made news last week when it turned up a

little lamb and a local Bo Peep (above) to advertise the fact. And typical of the demand for soap was the rush (below, right) by Chicago housewives when a store mentioned it was offering soap chips. Another shortage—educational facilities—was pointed up at Berkeley where University of California registrants (many G.I.'s) lined up for blocks, signed up in a hastily erected circus tent.

"Productivity" for Everybody

Management called to Washington meeting that will try to agree on what this fighting word means and on how to put some measurements behind it without fighting.

A few weeks ago C. E. Wilson, president of General Motors, called in the press to discuss the obstacles in the path of full automotive production. As it was bound to, the topic of worker efficiency soon ran away with the conversation:

Question: "...Do you know how much worker efficiency is down?"

Wilson: "It is down about 20%."

Question: "...Why is it down, Mr. Wilson, do you know?"

Wilson: "If I knew exactly why it was down, I probably would get it corrected, but it is down for a number of causes..."

Question: "...Don't you think a good part of this high turnover and absenteeism is due to the fact that you can't give steady employment at this time?"

Wilson: "It never worked that way before. I think it is more a restlessness, as an aftermath of the war..."

• **Definition Needed**—Wherever two or three management men are gathered together—or union leaders, for that matter—productivity soon inserts itself into the talk. Yet there are almost no statistics to resolve the problem one way or another, no simple charts to tell a conclusive story. Reason: Nobody is even in agreement on a common definition of the elusive productivity matter, much less on a method of measuring it.

How much work does a worker do? Or, in fancier words: What is labor productivity and how should it be measured?

Washington will soon be a battleground of debate on this subject. The Bureau of Labor Statistics and the Bureau of the Budget's Division of Standards made a facts-and-figures free-for-all possible by jointly sponsoring a conference on productivity scheduled for Oct. 28 and 29 (BW—Aug. 31'46, p. 86).

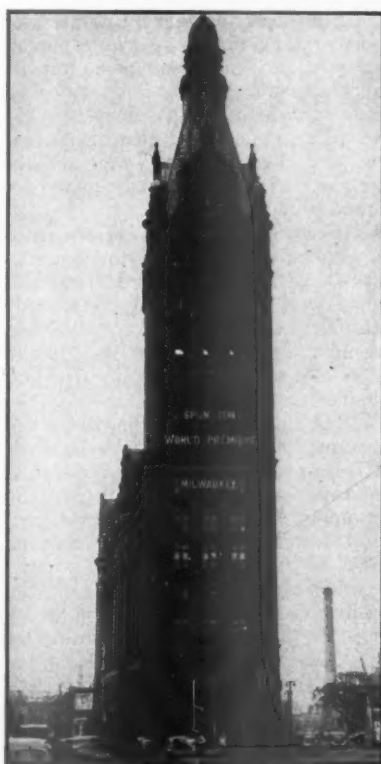
• **In the Arena**—Men like Charles E. Young of Westinghouse and Henry B. Arthur of Swift, Solomon Barkin of the C.I.O.'s Textile Workers, and Solomon Fabricant of the National Bureau of Economic Research will be in the arena. W. Duane Evans of BLS and Samuel H. Thompson of the Commerce Dept. will sit in for the government.

One battle usually does not make a war. And this statistical skirmish will be no exception. However, its effect on many struggles between companies and unions may be most important as management men strive to get increases in output per man-hour to offset increases in wages or attempt to put an end to union featherbedding practices.

• **Not Bargaining**—Members of the executive committee of the conference say the fact that management, labor,

and government are represented on the committee should not be misinterpreted. The committee does not feel it is running a tripartite arbitration conference—management is not expected to give in on one point so that labor will have to yield on another and government on a third. All that is expected from the discussion is a common acceptance of what is meant when the term "productivity" is used.

Conferees will be mindful of the fact



MUNICIPAL HUCKSTER

On Milwaukee's city hall, long a Socialist citadel, a commercial sign signals the promotion pinnacle in the local Fried-Osternmann Co.'s program to introduce Spun Sun—its new Fiberglas interlining for wearing apparel. A store window contest, banner-towing planes, and national advertising are included in the campaign being handled by the Milwaukee office of Arthur Meyerhoff & Co., but the advertising agency won't tell how it managed the city hall spectacular.

that productivity is a complex term. They know that attempts to compare productivity between different plants in the same country are totally misleading unless some account is taken of the varying ratio of capital per worker in the different plants. They know, too, that productivity comparisons between countries tend to reflect the technological levels of those countries. All know that management has the positive power to increase productivity by more mechanization, while labor has plenty of negative power to keep a lid on worker output.

• **Typical Questions**—However, the debate will hardly remain scholarly or the tempers of the conferees stay even when such questions as these come up:

Is it fair to compare production of present-day automobiles with those built 20 years ago?

Should allowance be made for changes in over-all weight or for changes in dollar value of the product?

What about making allowance for inflationary or deflationary price trends?

Can a pair of Army shoes be compared with an ordinary pair of men's oxfords?

If so, what weight should the heavy G.I. brogans get in comparison with the others?

• **Seek Common Ground**—Answers to these questions and others will have to be welded together in order to define what is being measured and how it should be measured so that "productivity" will mean the same thing to all.

Fabricant, who is chairman of the conference committee, doesn't even like the word "productivity" and seldom uses it. He considers the expression "production per man-hour" much more specific and meaningful.

• **Gap in Statistics**—A standard of measurements for productivity, or whatever it is to be called, will help to fill a gap in important industrial statistics. The biennial Census of Manufactures, a Commerce Dept. enterprise, has been of incalculable value to statisticians in trying to measure productivity changes. These censuses gave a complete enumeration of production by plants in terms of value added, total value of manufacture, and physical units. They also yielded figures on number of workers employed plant-by-plant.

But during the war there was no time to take such extensive canvases. The latest census was taken in 1939. Statisticians particularly mourn because there was no census in 1944, when peak output was reached.

They say they cannot use satisfactorily the Federal Reserve Board index of industrial production because it uses man-hours data instead of actual physical production for many of the component series of the index. To attempt to use the FRB index as a measure of productivity, statisticians say, is akin to reasoning in a circle, since so much of the index reflects assumptions of production per man-hour.

Pig Iron Squeeze

Acute shortage provokes dispute between CPA and Wyatt. Production subsidy will boost pig, may hit steel plants.

The battle over Housing Expediter Wilson Wyatt's program to subsidize production of more pig iron involves the usual issue of industry preference for across-the-board price increases instead of selective subsidies. It also gets into the running fight between the housing agency and CPA over the extent to which housing shall be pushed ahead of other industrial activity.

Despite wartime expansion of capacity, pig iron today is so short that many foundries claim they are in danger of shutdown. There are several reasons for this situation.

• **Costly Operation**—Many of the war-expanded facilities are uneconomic for commercial operation, particularly because of distance from sources of coal, coke, or ore. Of the 20 government-financed blast furnaces, only ten are now operating. The others were kept going during the war on RFC cost-plus



UNRAVELING PLUTO

In the Channel off the Isle of Wight, the former cable ship "Empire Ridley" reels in the emergency pipelines of war to take the edge off England's acute shortage of lead. Planned for the invasion of France in 1944, Operation Pluto involved laying some 1,500 mi. of flexible pipe which is expected to yield about 15,000 tons of lead—sorely needed for Britain's rehabilitation program.

contracts which ended with the fighting.

Normally something like a tenth of pig iron produced is in foundry grades for use in castings. The rest, so-called basic iron, is used together with scrap as the raw material of steel. The largest part of the foundry grade is produced by iron makers, but much of it comes from integrated steel companies doing a sideline business in merchant iron.

• **Double Pressure**—The postwar shortage of scrap, coupled with the continued high demand for steel, has meant that steel furnaces have had to be charged with more than the normal proportion of pig iron. This has squeezed the supply of merchant iron available to foundries. Steel companies devote more of their own blast furnaces to basic iron, and many of them have been buying basic iron from iron makers who normally serve foundries.

At the same time that the normal proportion of foundry to basic iron is under pressure, the housing program—with its huge demand for cast-iron soil pipe, radiation, bathtubs—has increased the need for pig iron more than it has that for steel. Housing needs now account for some 18% of the total demand for foundry iron.

• **Agency Struggle**—CPA is very sensitive to industry's demand for steel and has always been afraid that NHA's emphasis on housing might dangerously distort the economy. Thus the two agencies find themselves on opposite sides of a tug-of-war between basic and foundry iron.

NHA's program for easing the foundry-iron shortage is double-barreled. The least controversial phase is designed to reopen shutdown marginal plants by resuming subsidy of their operations. Forbidden by its law to use the wartime cost-plus arrangement, NHA is offering a uniform subsidy of \$12 a ton (the commercial price is \$28.50 for valley iron) on the total foundry-iron output of plants which have not been in operation this year.

• **More Capacity**—Under the NHA plan, a 280,000-ton capacity furnace at Republic's Gadsden (Ala.) plant is expected to get into operation in three or four weeks, a 176,000-ton furnace at Mystic, Mass., shortly thereafter, and one of the 427,000-ton furnaces at Indiana Harbor, Ind., leased to Inland Steel (the other one is still incomplete) soon. Either the 400,000-ton Lone Star furnace at Daingerfield, Tex., or the 274,000-ton Sheffield furnace at Houston may also come into operation; there isn't enough coking coal in the neighborhood to keep them both running.

The second part of the NHA program, involving an \$8-a-ton subsidy on increased production from plants now in operation, is what stirred up the battle. This subsidy is designed partly to increase the total output of iron and,



HOTEL AHOY!

Visitors to Chicago who find hotels booked full can now find refuge in the City of Grand Rapids (above), in the Chicago River. Operated by Cleveland & Buffalo Steamship Co., the floating hostelry offers its 167 staterooms at \$5 a day per room. The success of this venture—rentals average 125 rooms daily—has inspired the Detroit & Cleveland line to plan a similar enterprise. Typical customer is the businessman in town for a day or so—but some guests have liked it so well they stayed a week.

perhaps even more, to divert production from basic iron to foundry grades.

• **Substitute Plan**—When this plan was first broached several months ago, CPA and the steel industry counterproposed that, instead, either an across-the-board price increase or a subsidy be granted on production of all pig iron. They contended that this would increase production while maintaining the existing balance between steel and iron production.

OPA, however, was sceptical about any increase in production resulting from a price rise and would have none of it. NHA felt that it could not afford, in effect, to subsidize the production of steel, of which housing uses only 2% or 3%. And NHA felt that the present balance between steel and iron failed to reflect existing needs and should be changed. The issue finally went to OWMR boss John Steelman, who ruled against CPA.

• **Effects of Subsidy**—Payment of \$8 a ton on all production above 80% of each plant's peak month this year is expected to have several effects:

(1) Merchant iron producers may step up the output of each furnace by technical measures. They can also af-

ford to buy higher grades of ore and can haul ore and coke longer distances.

(2) Some diversion from basic to foundry iron will occur when merchant producers find it no longer profitable to make basic for steel mills. Where they are bound by existing contracts with steel mills, they are authorized to offer a \$2-a-ton bonus to subcontract back to the steel mills. This provision is intended to make it possible for some steelmakers to resume production of basic steel in furnaces they formerly found it more economic to shut down.

(3) A further diversion of uncertain extent may occur if steelmakers decide to earn the subsidy by converting basic iron furnaces to foundry grades, even though this somewhat reduces their steel production.

• **How Much More?**—There is little doubt that the combined program will increase the supply of foundry iron. How much is another question. NHA hopes that by December the 360,000-odd tons a month from present producers will be increased by something like 100,000 tons. And it hopes that by early next year resumption of production in closed plants will be bringing in perhaps another 80,000 tons.

Aircraft Makers Diversifying

Aviation industry plants its feet on the ground by adapting war-expanded facilities to manufacture of peacetime items. Several companies expected to enter prefabricated housing field.

Its business shrunk from a dizzy wartime maximum of \$16,500,000,000 a year to \$1,000,000,000, divided half and half between military and civilian planes, the aircraft industry is bravely trying to shift to manufacture of non-aviation products to utilize its full capacity, management, and personnel.

More than two dozen companies are producing such items as small boats, auto trailers, shower stalls, casket shells, movie machines, buses, engines, light construction materials, light metals, gas turbines, and metal furniture.

• **Aluminum Houses**—Four to a half dozen airplane builders are on the point of assisting the National Housing Agency's program by starting manufacture of aluminum prefabricated dwellings. Each company would produce 10,000 to 100,000 units annually. At a retail price of \$3,000 to \$10,000 a unit,

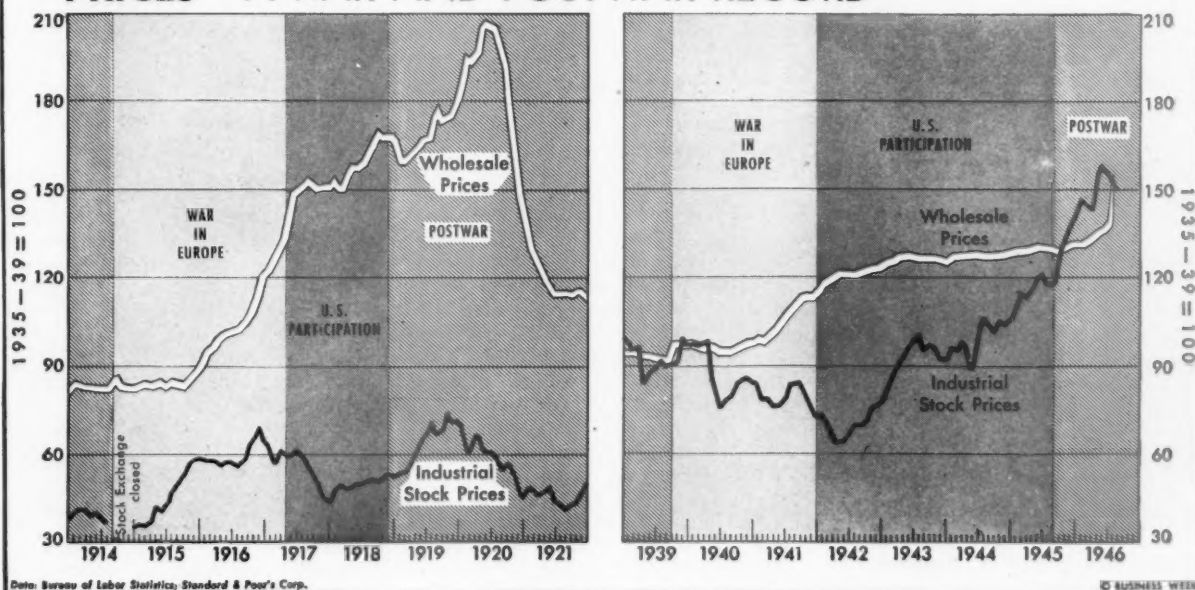
this might add up to more than the present volume of business in planes, engines, and propellers.

To meet the distribution problem, most producers are tying in with or purchasing concerns having established outlets. For example, Consolidated Vultee, largest venturer into nonaviation production, acquired ACF-Brill and its wholly owned subsidiary Hall-Scott Motor Car Co., maker of motor buses, trolley coaches, marine and industrial engines.

Aviation Corp., parent of Consolidated Vultee, is about to sell C.V. into a merger with Lockheed (BW-Sep. 21 '46, p. 56), leaving AVCO owning Brill and C.V.'s kitchen range and farm implement projects in the huge Nashville aircraft plant.

• **The Distribution**—Ryan Aeronautical's metal products division is making 1,000

PRICES—A WAR AND POSTWAR RECORD



People spend a great deal of time these days comparing the similarities of the present business situation with 1919-20—and with a certain amount of validity. Yet, in some respects, even more startling are the differences that mark the periods following World War I and World War II. This is conspicuously true of prices when the indexes of stocks and commodities are charted side by side. Even so, there is a coincidence about the way stock prices acted after each war: They started down within less than a year after the last shot was fired. After World

War I, it took commodities some six months to catch the stock market signal. Then followed the commodity crash and inventory depression of 1920. Do the activities of the 1946 stock market (page 122) mean a repetition of this? In answering, it is well to refer once again to the differences between the two periods. Commodities are going up but are still far below the towering levels of 1920; prices are much less lucrative relative to costs now than they were in 1920. Thus there seems a good deal less room for a commodity crash to come upon us this time (page 9).

casket shells a month for distribution exclusively by Earl Newcomer of Kansas City. Curtiss-Wright has purchased Victor Animatograph Corp. of Davenport, Iowa, large producer of 16-mm. motion picture equipment, but plans no immediate change in the organization of the company.

Spartan Aircraft's all-aluminum luxury trailer coach is distributed exclusively by the Frank D. Boynton Co. of Detroit. Timm Aircraft's subsidiary, Timm Industries, is delivering Coca Cola coin-changer vending machines to Mills Industries, Inc., of Chicago.

Bell Aircraft says its rule of thumb is to accept contracts for practically anything it is equipped to build. So far, that includes heater cases for a radiator company, filing cabinets for another firm, parts for musical instruments, 5-hp. gasoline engines and transmissions, dry-cleaning apparatus, tobacco-stripping machines, bottle labelers, and coin-changing devices.

• **Days to Come**—Kellett Aircraft says "we make 'em—you sell 'em" and has contracts for deep-freeze and quick-freeze units totaling several millions of dollars. It also makes metal shower stalls,

farm implement parts, and water tanks for rail cars.

Some companies—like Douglas, producing aluminum sport boats; Grumman, building aluminum canoes; and Fairchild's Duramold division, making bonded plywood lightweight "car-top" boats—find that in these times distributors hear about it and come and get it. But they and most other firms now selling direct will set up or appoint distributors as soon as possible, against the day of competition.

Nearly all companies emphasize that they are using aircraft technique in their nonair products. Their specialties are press work with riveting and welding, and they are expert in jig and fixture assembly of large units.

• **New Problems**—Airframe companies have had more experience than most industries in working with aluminum and magnesium along this line. But they will have to move on into castings, forgings, and extrusions if they expect to manufacture hand-held hard goods.

• **Varied Beginnings**—Ryan is building test quantities of equipment for oil refineries, the food industry, and wineries. It is also developing for Navy jet engines a heat-resisting metal which will have civilian application.

Glenn L. Martin developed Marvinol resin early in the war. This will soon be produced in a \$500,000 plant at Painesville, Ohio, whose initial capacity is 11,000,000 lb. a year. The company makes photo emulsion for any size of reproduction on almost any material and Honeycomb, a light structural material with many applications.

In addition to boats, Fairchild's Duramold division is building cabinets for Emerson Radio and negotiating a contract on light commercial transport trailers.

• **Variety Plus**—Northrop's exploration of light-metal production outside the industry produced a Salisbury "85" two-wheeled motor vehicle (BW—Sep. 21 '46, p. 46). Northrop Foundry, Inc., is building a shower base of cast aluminum. Northrop-Hendy, jointly owned by Northrop and Joshua Hendy Iron Works, is working on its "turbodyne" gas turbine.

Metalite, a new structural material made by Chance Vought, is all going into navy planes now, but the company says the metal has characteristics desirable in nonaviation work and will be released after further experience. G & A Aircraft, which became expert in plywood by building gliders for the Army, has turned to console radio cabinets.

Aeroproductions, division of General Motors, is reported making washing machine parts; Solar, midget racing cars and stainless steel coffee stands; Bendix, automotive parts and rail communications equipment; Menasco, washing machines.

Cheap Magnesium

Kaiser metals firm develops continuous-operation process to cut production costs. Company also tests new blasting powder.

Permanente Metals Corp., the Henry J. Kaiser enterprise that turned out millions of pounds of magnesium during the war, when output rather than cost was the touchstone, expects to put into operation next month a new production method which it hopes will cut costs sharply.

The new development will transform Permanente's carbothermic process for extracting magnesium from dolomite and seawater into a continuous operation. The former process was a batch operation.

• **Big Saving Predicted**—Kaiser officials are not ready to go into details on the improved process, but there is talk of perhaps a 50% reduction in operating costs.

Permanente was the only wartime magnesium producer to use the carbothermic process. Dow Chemical Co., dominant magnesium producer, employs an electrolytic process. Various wartime operators of government-financed plants used this system, while others employed a ferrosilicon method.

The carbothermic process involves the reduction of magnesium oxide by carbon to produce the free metal and carbon monoxide. But there are many engineering problems to overcome. These include the tendency of the reaction to reverse itself as the temperature drops, and the explosive nature of the magnesium dust at the high operating temperatures required.

• **Cost Comparison**—Difficulties were fairly well overcome in the batch process, but costs were high. The Surplus Property Administration estimated that the lowest production cost at Permanente was 20¢ a lb., against 12¢ a lb. for such plants as those of Dow at Midland, Mich., and Freeport, Tex.

Long before the cessation of wartime demand for magnesium forced Permanente to shut down, Kaiser engineers recognized the economic necessity of lowering the plant's production costs. The changeover to a continuous process is the result.

• **New Product**—Another step in this direction was revealed recently during a coroner's inquest into an explosion which killed two persons and destroyed a building at the plant. Company officials disclosed that they are working on a new blasting powder having a magnesium base. This is said to be more economical than existing powders and insensitive to shock.

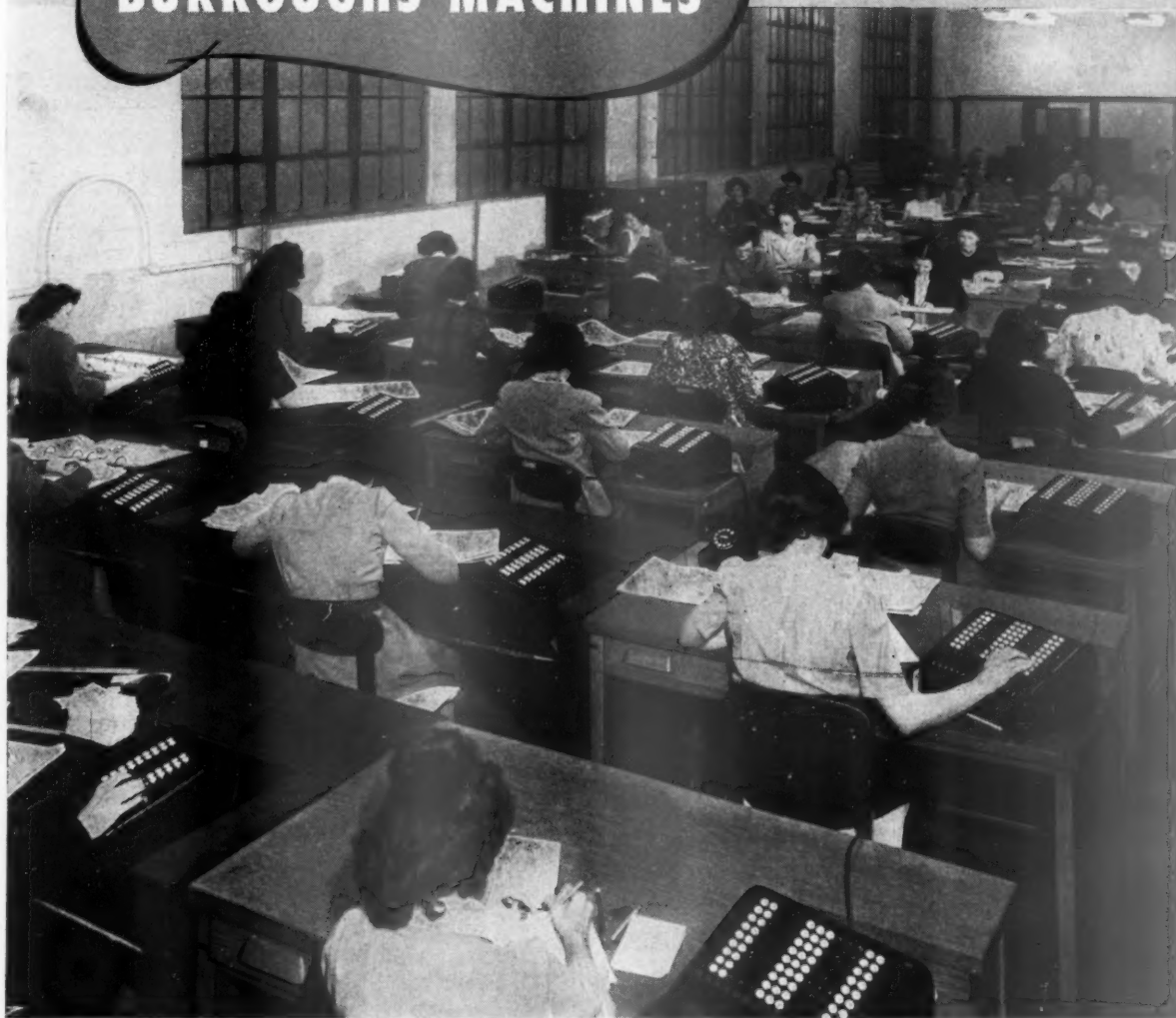


SMOKE SALESMAN

For its new president, American Tobacco Co., traditionally one of the nation's big advertisers, has picked another advertising expert, Vincent Riggio (above) to succeed the late George W. Hill. With American Tobacco for about 40 years, Riggio had been vice-president in charge of sales since 1929, was long associated with Hill, whose slogans—"It's Toasted," "Reach for a Lucky Instead," and "L.S./M.F.T."—made selling history.

WHEREVER YOU GO— YOU SEE BURROUGHS MACHINES

U. S. RUBBER COMPANY
like most of the world's great industrial concerns, is an important user of various types of Burroughs machines. In this office of the Indianapolis plant, Burroughs Electric Calculators are used on practically every desk.



Burroughs has always been first in developing machines and operating features to make office work simpler, faster, easier. This is the continuing objective of a research staff that works in close cooperation with businessmen and operators everywhere. Today, more engineers and scientists than at any time in Burroughs history are working with the finest laboratory equipment obtainable, improving current Burroughs products and creating new machines for the needs of tomorrow.
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Production is "BIG, HOT, HEAVY"

That's how one of industry's own spokesmen recently described industrial conditions in Massachusetts. Plants — some working two 50-hour shifts—are "swamped" with orders, another reports. Statistics show employment 20% above prewar years.

Fast, economical transportation, geographical nearness to world trade centers, renowned research facilities, and skilled labor help explain why production is "Big, Hot, Heavy" in Massachusetts.

Write for the action booklet, "The Open Book." Massachusetts Development and Industrial Commission, 20 Somerset St., Boston 8, Massachusetts.



THE GO LIGHT IS ON IN MASSACHUSETTS

HEART OF NEW ENGLAND'S
MASS MARKET OF EIGHT MILLION

Tucker Advances

**Ypsilanti engineer leases
Dodge engine plant at Chicago
for torpedo car production.
Stock issue reported coming.**

The mammoth Dodge aircraft engine plant at Chicago will be leased to Preston Tucker, Ypsilanti (Mich.) engineer and machine-tool manufacturer, under an agreement reached with the War Assets Administration last week. Tucker, who plans to produce there his torpedo automobile of radically different design, has been dickering over rental and other terms since June (BW—Jun. 8'46, p19).

• **Financial Proviso**—Final acceptance of the lease terms by WAA depends on whether Tucker gives evidence by Mar. 1, 1947, when the lease becomes effective, of sufficient financial backlog to meet the lease obligations. Reports are that Tucker is seeking investment banking support for a \$20,000,000 stock issue.

Under the agreement, rental for the 6,430,000-sq. ft. plant will be \$500,000 a year for the first two years of the ten-year lease, \$2,400,000 yearly, or 3% of the gross sales, whichever is greater,

thereafter. But the rent in any one year will not be allowed to exceed \$4,000,000.

• **Purchase Option**—The lease also gives Tucker an option to purchase the \$170,000,000 property for \$30,000,000. What machinery, if any, is included in the purchase price, was not announced. Tucker has until Mar. 1 to determine what machinery he wants to buy. What is left of it will then be sold by the WAA.

In addition, space in the plant not immediately needed by the Tucker Corp. will be rented to other tenants, with WAA approval. This arrangement will increase the government's income from the plant during the early low-rent years of the lease. Suppliers of parts for the Tucker car are expected to take over part of the space available for rent.

Between now and March, Tucker will use the administration building and space for production of pilot models.

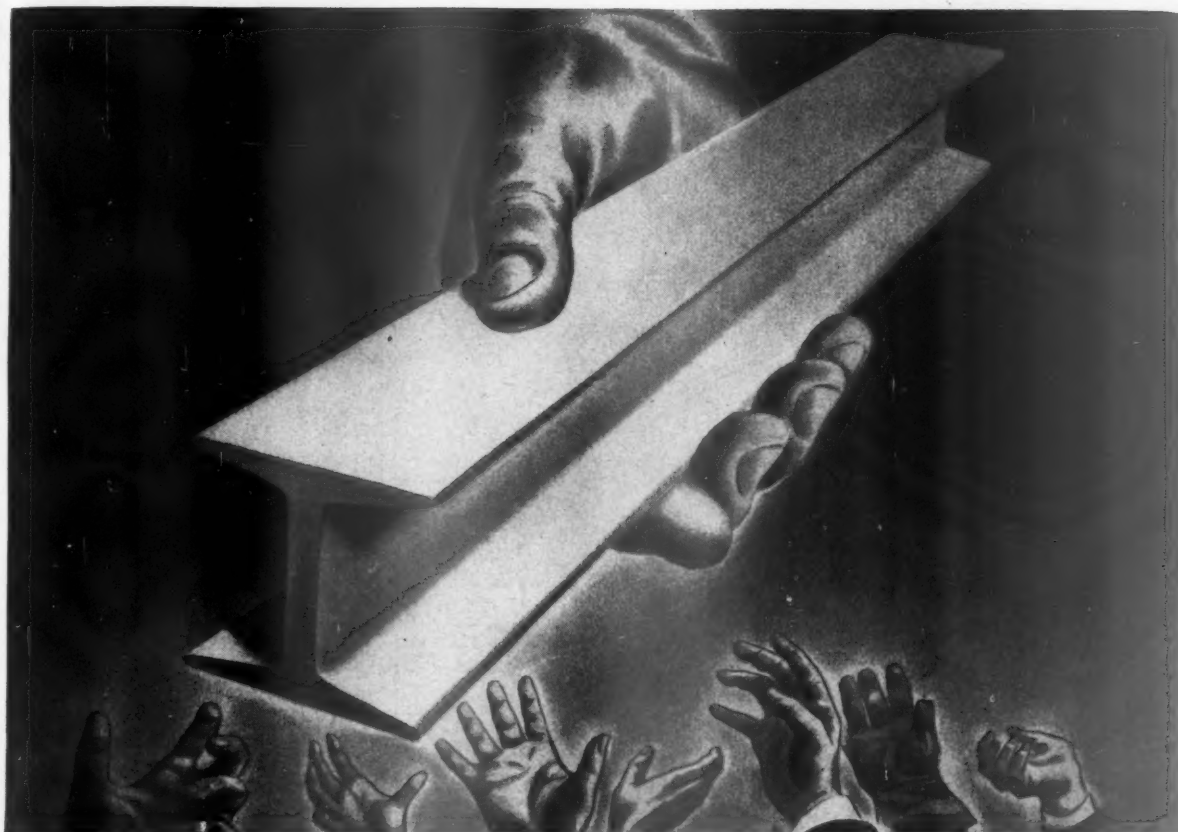
• **Price Estimates Up**—The streamlined car projected by Tucker will have a four-wheel drive, with the engine in the rear, and will incorporate other engineering innovations. Originally planned to sell for \$1,000, the car is now expected to be priced between \$1,600 and \$1,800.

Present plans call for an assembly



MOBILIZING FOR HIGHWAY MAIL SERVICE

A bus (above) with fittings resembling a railway mail car, goes to work carrying the mails for Uncle Sam. The new carrier, operated by Gulf Transport Co., subsidiary of Gulf, Mobile & Ohio R.R., makes the 183-mi. trip between Mobile, Ala., and Union, Miss., six times a week, the mail being sorted en route. The company reports that this, the nation's fourth mail bus, is the first to be privately run. The contract calls for \$30,000 a year. The Post Office Dept., having approved some 200 highway postal routes to communities not serviced by trains, is now looking for contractors—and equipment.



Brother, can you spare a beam?

Steel is like money. When you need it, you need it *badly*. That's why we have many steel plants to give next-door service most anywhere.

But lately it's getting so we hesitate to open the mail or answer the phone. We *know* there will be friends asking for steel—steel they need badly—and often we just are not able to fill the bill.

And here's what's causing it all

For a while it looked as though production would soon catch up with demand. Now that time seems more distant. The many things holding up top steel production have been slow to clear away. Unpredictable stoppages keep popping up, and shortages have brought other delays. You know about many of them. We've been doing our best, but for reasons

beyond our control, we're still getting orders we can't fill.

But remember this:

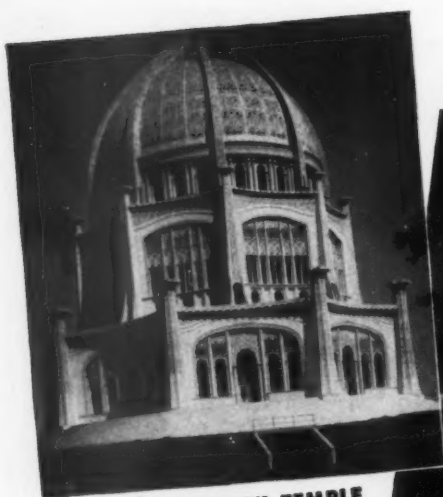
One of these years the steel situation is going to change for the better. When that happens our plants will be among the first to stock products now hard to get and we'll burn up the roads rushing your steel to you. In preparation for that day, we're improving and expanding facilities, to protect the quality of Ryerson steel and ship it to you faster.

We are even now building a new plant and adding extensively to equipment at 11 others.

Meanwhile, the steel you need or a practical alternate may be in stock. So contact the nearest Ryerson plant with the full knowledge that we will do everything in our power to work with you.

JOSEPH T. RYERSON & SON, Inc., Steel-Service Plants at: Chicago, Milwaukee, Detroit, St. Louis, Cincinnati, Cleveland, Pittsburgh, Philadelphia, Buffalo, New York, Boston

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All three are built of enduring CONCRETE

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May we cooperate with your architects or engineers in applying the economies of concrete to your building plans?

PORTLAND CEMENT ASSOCIATION

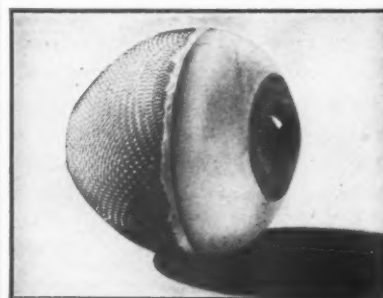
Dept. 9d-12, 33 West Grand Ave., Chicago 10, Ill.

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WITHOUT STARE

A little girl who has lost her right eye proudly demonstrates how she can move her new plastic replacement in coincidence with her left. Secret of the eye's mobility is that it is sewn to the eye muscles, tantalum threads being attached to a mesh of the same metal that covers the back of the eyeball (below). Dr. A. D. Ruedemann, chief eye surgeon of the Cleveland Clinic, developed the eye with Fritz Jardon of American Optical Co., Southbridge, Mass., which manufactures it. Over 200 people reportedly have already been fitted with it.



line to turn out 200 cars a day in the beginning. Tucker forecasts a peak output of 1,500 cars daily, and eventual employment of between 35,000 and 40,000 workers.

To build his dealer organization, Tucker is signing up dealers on a two-year franchise which calls for a deposit of \$50 per car for each car the dealer expects to sell over the two-year period. The deposit will apply to the purchase price of the car when the dealer takes delivery. Tucker hopes to have 1,000 dealers lined up when production begins on the new car.

WHAT EVERY BUSINESSMAN SHOULD KNOW ABOUT HIS PARTNER—THE RAILROADS



WANTED: FREIGHT CAR STRETCHERS

We've never seen one—but they'd be mighty handy right now. There's a record-breaking harvest now being moved by the railroads. Industrial production is rising. There just aren't enough freight cars to move all the traffic as quickly and efficiently as we'd like.

During the war, the railroads couldn't obtain all the new cars they needed. Even now, material shortages and other difficulties are holding up freight car construction. And an ever-increasing number of freight cars are wearing out due to heavy wartime service.

The average freight car load has decreased in the last year. More cars are carrying less-than-carload lots. And the adoption of the five-day week by many industries has increased the time* that cars stand idle waiting to be loaded or unloaded.

If the average time it takes each car to handle a load could be reduced by *one day*, it would add the equivalent of 100,000 cars to the nation's supply. Railroads are striving to reduce this "turn-around" time by speeding up the hauling, switching and repair of cars wherever possible. Shippers and receivers of freight can help stretch freight cars by loading and unloading them *at least six full days a week*.

Working together, as they did so successfully during the war, railroads and shippers can overcome these shortages and avoid business losses.

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TRANSPORTATION — A POLICY FOR THE FUTURE.

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The word DICTAPHONE is the registered trade-mark of Dictaphone Corporation, makers of Electronic and Acoustic dictating machines and other sound recording and reproducing equipment bearing said trade-mark.

Cotton Enterprise

Market and research group seeks new uses and markets to ward off threat of synthetic fabrics, return of low prices.

Faced with stiffening competition from synthetic fabrics, the National Cotton Council recently asked its planter-members for an unprecedented contribution of 10¢ a bale to augment its research and promotion program.

The council's aims are to discover new markets for the crop that once was king, and to advertise nationally cotton's advantages, new uses, and style.

• **For a Rainy Day**—Many notable new uses have been developed under council sponsorship since its organization in 1938. Among them are cotton insulation, processes for making newsprint, weatherized cottons, ways of making cheap cotton more durable and better-looking, processes for strengthening the product. A large-scale national advertising campaign over the six years has also produced notable results in popularizing cotton as a high-fashion cloth, increasing the use of cotton bagging, and selling cotton's new functions.

Admittedly, times are good for cotton now; the price is high, the demand higher. But the council remembers 1938—and 9¢ cotton.

It was the 9¢ price, plus the growing threat from synthetics, that brought cotton planters, shippers, ginnermen, warehousemen, spinners, and merchants together in Memphis to form the National Cotton Council, Inc.

• **Market Research**—An early move was to inaugurate a market research campaign. One result was agreement that, to influence the mass Main Street market, it would be necessary first to sell fashion leaders. So the initial advertising appropriation was spent in such "class" publications as Harper's Bazaar, Mademoiselle, and Vogue.

This was succeeded by the "American Designers" campaign, which is still under way. Each month, full-page ads show special cotton creations of spotlighted top-rank designers. Trade-press insertions merchandise the designer campaign to the retailer and wholesaler, and point-of-purchase signs and tie-ins are used.

Selling the high fashion theme for cotton is not all of the council's promotion job, however. One campaign, still going strong, shows Main Street housewives how to use cotton bagging for piece goods. The success of the idea may be judged by the fact that more than two million housewives have written in for booklets on how to do it. This puts pressure on packers, who then use more

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POWER

for the world's LARGEST STEEL PRODUCER

BY-



TYPICAL example of the results which you, as a purchaser and operator of power plants, can expect from the application of the DRAVO *Single-Contract Method* of Power Plant Construction is this installation for the Edgar Thomson Works of Carnegie-Illinois Steel Corporation.

☆ The need was urgent, the construction complicated. To relieve its own engineering staff of additional burdens of supervising and coordinating many sub-contracts, Carnegie-Illinois Steel Corporation, acting through Defense Plant Corporation, and the Consulting Engineers decided to place major responsibility with a single contractor.

☆ With more than a half century of ex-

perience in the construction of boiler and power plants and the installation of equipment, DRAVO was prepared to accept this responsibility. Under the DRAVO *Single-Contract Method* a definite price and a definite schedule for construction were assured. The reliance on DRAVO experience and responsibility produced tangible results when the construction schedule was maintained to completion and major equipment was put into service approximately six months before the completion date.

Industrialists and Engineers concerned with the construction and operation of boiler and power plants will want to read Bulletin SC-513 for additional details of the success of this project. Power Department, DRAVO CORPORATION, Pittsburgh 22, Penna.

Built by the Machinery Division with Substructure by The Contracting Division

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Power and
Boiler Plants
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Ore Bridges
Cranes and
Derrick Boats
Crane
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POWER



FOUR FREEDOMS FOR ENGINE OPERATORS

SUN "JOB-PROVED"
LUBRICANTS MEAN
FREEDOM FROM
OBJECTIONABLE CARBON,
SLUDGE; EXCESS
OVERHAULS AND
REPAIRS

Here's a case where "Job-Proved" Sun industrial lubricants mean freedom from fear for a Diesel operator and freedom from carbon, sludge, and excess overhauls for the engines.

Five years ago, two 125-H.P. Diesels in an important modern sewage plant had to be frequently overhauled because of heavy sludge formation and high oil consumption.

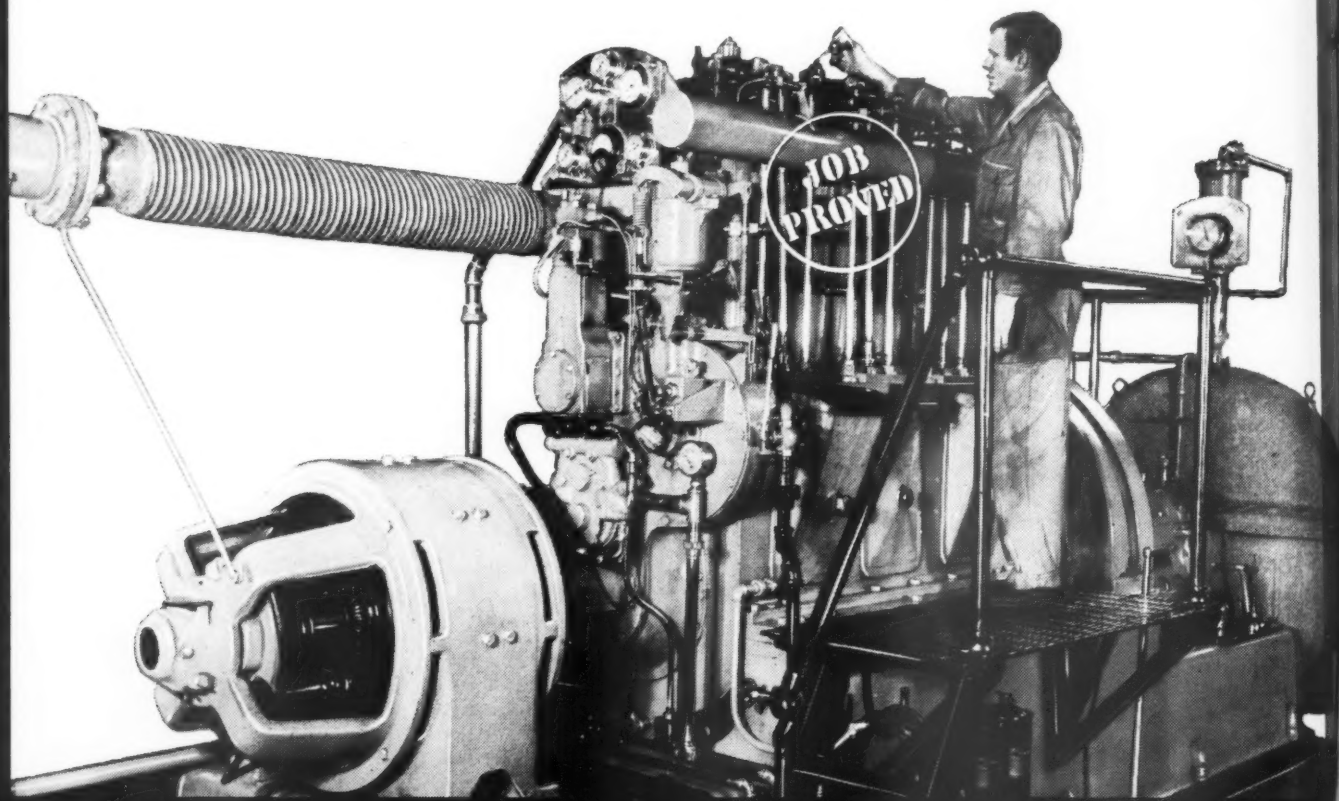
After a talk with a Sun Engineer, who knew the effects of intermittent operation on Diesel engines, a switch was made to a specially developed Sun lubricant.

Two years later the plant engineer reported that the original Sun oil was still in the crankcase, and that they had experienced perfect lubrication in all parts.

No carbon, sludge, repairs or overhauls! Oil consumption very low!

These facts are typical of the results in hundreds of plants where Sun products are on the job. Sun Engineers who have spent their lives studying the correct application of petroleum products to industry, are ready to help you in practically all leading industrial areas. For lubricating oils and greases, cutting oils, fuel oil, petroleum spirits, processing oils for rubber, textiles, or other materials — or for down-to-earth, practical advice and help — call the Sun man near you today.

SUN OIL COMPANY • Philadelphia 3, Pa.
Sponsors of the Sunoco News-Voice of the Air — Lowell Thomas



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cotton for bagging (BW—Sep. 7'46, p47).

• **Publicity, Research**—Designed for focusing editorial eyes upon cotton are such special promotions as the annual Maid of Cotton affair. Smaller campaigns work to increase the popularity of margarine (which is made from cottonseed oil) and such new products as cotton insulation.

Some of the research is carried out in private laboratories on money grants from the council, some in government experimental stations, and some in the Dept. of Agriculture's big Southern Regional Research Laboratory at New Orleans. Among the developments of the New Orleans laboratory is a flexible cotton bandage which allows orthopedic patients free use of their limbs.

Cotton insulant developed by the council and other experimenters was used in an Illinois Central refrigerator car early this year. In two test runs, the insulated car delivered its cargo to destination in almost exactly the original condition. Officials of the line called the test "most satisfactory," since, among other things, the cotton insulant was more than a ton lighter than the insulant formerly used.

• **For Building**—The Farm Security Administration has also experimented with

cotton for home insulation. In one trial unit located near Blackamon, Ala., the FSA installed cotton duck insulation five years ago. FSA engineers this year pronounced the duck insulation still intact and good for many more years' service.

Then there is Cottontex, not yet perfected. Cottontex was devised by an Alabama cabinetmaker who declares that it can take the place of wood for any purpose and will not warp, sag, or swell.

The council reports that "real progress" has been made toward development of a plastic laminate structural material from cotton fibers and resin. This light, strong material can be colored permanently during fabrication and will not rust or corrode.

• **New Processes**—Seeking a material to save the lives of fliers who often were dunked into Arctic waters on the Russian run, the Army's Air Transport Command developed a method for waterproofing cotton that the council is now investigating with an eye to invading wool's market.

Other waterproofing processes make it possible to sponge off cotton draperies, slipcovers, and lampshades. One method, developed at the New Orleans

tip to refrigeration
sales managers who
want to be president



Sure, customers are standing in line today for your refrigerators and freezing equipment. But whose line is longest? . . . Whose prospects are best for tomorrow?

What buyers are seeking most in refrigerators is more capacity (they assume that any well-known equipment is going to work). Surveys show that the most common complaint of present owners (54%) is that their refrigerators are "too small"; 94% would pay more to get more space.

Now, all you need to do to get the important selling advantage of added capacity for your company's equipment is to recommend insulation with Santocel, "the world's best insulating material." This unique chemical product, a silica aerogel, cuts insulation bulk in half, without loss of efficiency . . . (boxes of 6.5 cu. ft. storage capacity can, with Santocel insulation, take 9 cu. ft. storage).

Your technical men know about Santocel. Your knowledge of sales values may be needed for an impetus.

If up-to-date data is needed write today. Meanwhile, clip this advertisement and make your recommendation today. MONSANTO CHEMICAL COMPANY, Merrimac Division, Boston 49, Mass.

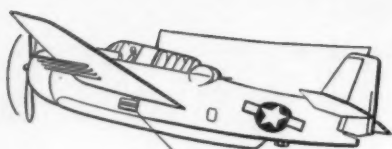
Santocel: Reg. U. S. Pat. Off.



BRIGHT LIGHTS AFTER A BLACKOUT

Closed tight during the war years, General Electric's lighting institute at Nela Park, Cleveland, reopened recently—bigger and better than ever. Not a showplace but maintained to demonstrate the latest lighting devices and their application, the institute has been completely rebuilt, offers an improved series of educational displays and model installations. Typical exhibits: the patio sun deck (left) capable of furnishing infrared and ultraviolet radiation equivalent to midsummer sunshine; the manager's office which registers between 100 and 200 footcandles of light but comfortably diffused by ceiling "eggcrate" louvers. Other exhibits show the latest in lighting for everything from modern home kitchens to retail shops and industrial plants.

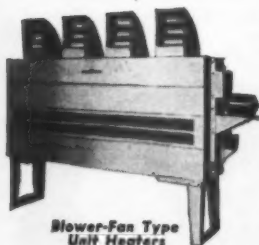




EXPLORE UNDERGROUND BY AIR - -



Propeller-Fan Type
Unit Heaters



Blower-Fan Type
Unit Heaters

Developed during the war, Magnetic Airborne Detection and Short Range Navigation may revolutionize accepted methods of discovering metal or oil deposits. However, aerial exploration of the earth's secrets may mean little to your business.

Installation of Herman Nelson Heating and Ventilating Equipment is important to your business if you want to improve working conditions and thus help speed up production, keep employees on the job and reduce accidents to a minimum.

Herman Nelson Unit Heaters, Propeller and Centrifugal Fans and Unit Ventilators . . . the result of 40 years' constant and painstaking research . . . incorporate many exclusive features of design and construction to assure superior results. They have proved their value in thousands of installations all over America.

When installing heating or ventilating equipment in any commercial, industrial, or public building, remember that you can't buy better products than those bearing the Herman Nelson nameplate.



**THE HERMAN NELSON
CORPORATION** MOLINE
ILLINOIS

FOR 40 YEARS MANUFACTURERS OF QUALITY HEATING AND VENTILATING PRODUCTS

laboratory, renders cotton bagging impervious to rot; test bags, buried in the moist Louisiana earth for two years, were found in excellent condition.

Still another new cotton fabric, for use in wrappers and bags, can be sealed more efficiently than standard cotton cloth. It is so cheap that diapers and napkins made of it can be discarded after one use.

• **Figs From Thistles**—Lowly osnaberg, the roughest, cheapest waste product made from cotton, can now be turned into a soft-hued fabric. And research into cotton bonding processes points the way toward cotton fabrics of the future that may be 40% stronger than those available today.

Not all of this research was done by the Cotton Council, but it is responsible for much of the work. The council's nudging also pushed many a manufacturer into discovering improved cotton processes instead of turning to other textiles.



SERVICE IMPERSONAL

In the Pennsylvania Railroad's Suburban Station in Philadelphia, you pay your money and take your choice. That's the principle of a completely automatic ticket-vending machine which, without benefit of attendant, takes the customer's money, issues a dated ticket plus the correct change, all in just two seconds. Made by Trans-Meter Corp., New York City, the present machine is an experimental model, lists only sixteen stations, but could be equipped to handle up to 50. The company expects to sell them for around \$1,000. Present models are suitable only for short-haul traffic, since no way has yet been found to make them handle bills.

MILLIONS
to Serve You.



74,079,019 ARE IN USE ON THE N & W TODAY

Powerful steam locomotives; sleek, streamlined coaches; sturdy freight cars, and glistening rails that stretch many thousands of miles . . . north, south, east and west . . . to bind America together . . . these things are railroading . . . to most of us. But ask the "old timers" who build the tracks and run the trains. They will remind you of a multitude of "little" things. Like railroad spikes . . . $7 \frac{3}{16}$ inches long, $\frac{5}{8}$ of an inch square . . . so inconspicuous they almost completely escape public notice. They will tell you that these spikes are carefully forged of sturdiest steel; are minutely inspected and expertly driven into the crossties to anchor and hold fast the strong rails over which heavy freights and deluxe streamliners speed safely day and night.

In good railroading, the big, obvious elements are important. But the thousands

of "little" things, counted in the millions, such as spikes, are just as vital.

Lay the spikes now in use on the N. & W. end-to-end and they will reach from Norfolk to the South Pole, or from Cincinnati to Ceylon.

However small a single piece of railway equipment may seem, it, with other small pieces, plays a big part in the railway's job . . . *to Serve You.*

Norfolk
and Western
RAILWAY

PRECISION TRANSPORTATION



**HANDLE 1 PACKAGE
INSTEAD OF 12**

**and make it . . .
"bound to get there,"**

says Doc. Steeltrap*

Handling one package instead of many—six, twelve, twenty-four, you name the figure—that's the job Acme Uni-Pak with ACME STEELSTRAP enables you to do. Acme engineers have the facts and figures on savings in time, labor, materials and shipping costs for many leading manufacturers. If you'd like the whole story, too, write for full information.

*REG. U.S. PAT. OFF.

ACME STEEL COMPANY

**ACME STEEL CO.
CHICAGO**

NEW YORK 7

ATLANTA

CHICAGO 8

LOS ANGELES 11

Sulphite Alcohol

Pudget Sound firm builds a major business on waste liquor derived from wood pulp. Next objective: closer markets.

Those who doubted the feasibility of making industrial alcohol from sulphite liquor, an abundant waste material in the reduction of timber to wood pulp, today are taking a long look at the Puget Sound Pulp & Timber Co.'s alcohol plant in Bellingham, Wash. The plant is producing about 7,000 gal. of 190-proof alcohol daily.

Company officials, however, are not pausing to enjoy their triumph over the skeptics. Although present demand is lively enough to drain every drop of the plant's output, future demand is something else. The company knows that it must develop new markets in the West or take a beating from petroleum (and perhaps molasses) alcohol. • **Swedish Development**—Sulphite liquor alcohol has a long history, but virtually all of it has been written in Sweden. There, 34 plants utilized the waste liquors of the pulp mills to turn out the equivalent of 15,000,000 gal. of 190-proof alcohol in 1945.

Ossian Anderson, late president of Puget Sound, and his associates began urging government consideration of the alcohol plant in 1939, when the Nazis began extending Germany's borders. They fortified their argument with the known fact that a major fortune trickles through Uncle Sam's tax fingers when pulp plants dump as waste the liquor that results from the cooking of wood for cellulose.

The rub was that nobody in the U. S. had figured out an economic way of utilizing the wood sugars, resins, and lignin from the sulphite liquor. The Swedish plants fermented the wood sugars and got alcohol, and Puget Sound contended that the same process could be employed here.

• **Success Story**—In 1944, with the sponsorship of the Dept. of Agriculture and the financial blessing of the Reconstruction Finance Corp., Puget Sound went ahead with construction of the \$1,100,000 plant which now overlooks Bellingham Bay.

From March, 1945, until the war ended in August, the plant poured a million gallons of alcohol into synthetic rubber. Since that time it has produced 6,500 gal. to 7,000 gal. a day. All of the output has been marketed through an industrial alcohol firm in Chicago.

This year the War Assets Corp. put the plant up for sale, received one bid—from the operator—and rejected it as

2300 Supply Points



... to serve all your plants — *wherever* located

EVERY PIN marks a wholesale supply point.

EVERY POINT is a convenient source of supply for Texaco fuels and lubricants.

ONE PURCHASING AGREEMENT sets up this service for all your plants, *wherever* located ...

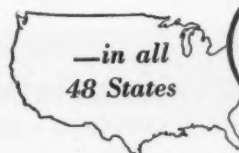
INSURING each plant the benefits of product uniformity and so, uniformity of performance and operating economy ...

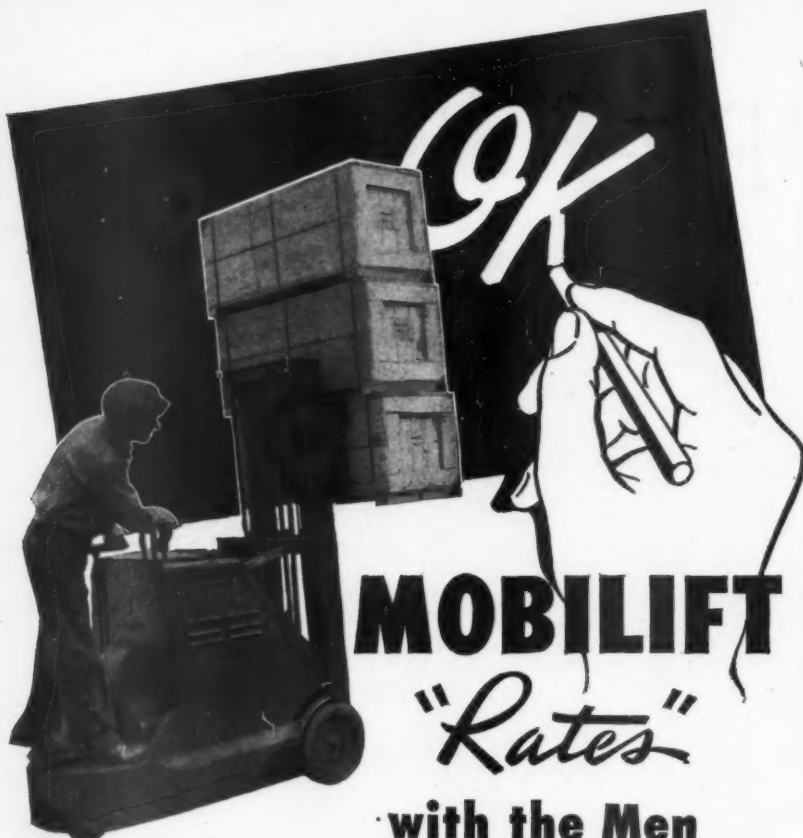
PLUS improved quality of petroleum products as a result of wartime developments and continuous research ...

PLUS the services of skilled Texaco Lubrication Engineers — to cooperate in increasing output, reducing costs.

PHONE the nearest of the more than 2300 wholesale supply points or write to The Texas Company, *National Sales Division*, 135 East 42nd Street, New York 17, N. Y.

The Texas Company





MOBILIFT "Rates" with the Men in the Warehouse

SALES OFFICES:

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Ask the crew in any warehouse where Mobilift is in use. They'll tell you how much simpler, faster and smoother a Mobilift moves materials. They'll tell you, too, that Mobilift is safer and easier than the old "muscle methods" of the hand truck. And if you check with the superintendent, he'll tell you that Mobilift pays for itself many times over in lower handling costs. Join the thousands of plants that are cutting production costs with Mobilift.

SEND FOR FREE FOLDER TODAY

MOBILIFT

Moves Materials like a Giant!

VAUGHAN MOTOR COMPANY • 835 S.E. Main St. Portland 14, Oregon

too low. Now Puget Sound Pulp & Timber operates it on lease from the government.

• **Costs**—The plant's future rests on its production costs and on the company's ability to drum up new and nearer outlets for its product.

Present production costs are the company's carefully guarded secret. Rayburn D. Tousley, assistant professor of marketing at Washington State College, estimated a year ago in a study of industrial alcohols that the cost of making alcohol at Bellingham ranges from 15¢ to 19¢ a gal. This estimate never has been challenged.

Tousley compared these figures with 10¢ a gal. for petroleum alcohol and 16¢ for alcohol from molasses. (The molasses alky figure is based on the assumption that molasses, now about 13¢ a gal., will return to its prewar level of 5¢ when supplies ease. It requires 2.4 gal. of molasses to make a gallon of alcohol.)

• **Looking Ahead**—With demand high, Puget Sound can move its 15¢-19¢ alcohol halfway across the continent, pay the freight cost, and sell it, presumably at a profit, in Chicago. When competitive alcohols make freight cost a burden, the company will be obliged to find outlets nearer home.

Toward that end, the company is stimulating the Pacific Northwest's interest in the construction of plants for the manufacture of paints, lacquers, solvents, acetic acid, and other chemical products that require alcohol.

HUTCHINS TO BRITANNICA

Encyclopaedia Britannica's plans to invade the book-publishing field (BW—Mar. 23 '46, p. 86) have been fortified by an arrangement with the University of Chicago (to all intents and purposes Britannica's parent company) whereby it will lend its chancellor, Robert M. Hutchins, to Britannica for the entire current academic year. He will fill the newly created post of "chairman of the board of editors."

Avowed purpose of the move is to allow Britannica the use of Hutchins' experience in adult education. Actually, his major task will be to advise on preparation of one of his pet projects, Great Books of the Western World (54 books plus nine anthologies) which Britannica plans to release in 1948 both by subscription and through the trade by way of its recently formed subsidiary, Encyclopaedia Britannica Press.

The latter company plans to inaugurate its publishing activities next month. The initial offering will be a series of twelve picture books for children, each telling the life story of an animal. This series will be scientifically accurate; the animals do not dress in human clothes or conduct conversations.



When the farmer first stood upright

For thousands of years men worked in their fields, bent double, slowly and laboriously cutting the grain with sickle and scythe. Then in 1831, in a blacksmith shop in Virginia, a 22-year-old farmer named Cyrus McCormick built the Reaper, complete with divider and revolving reel. Any small boy could operate it and cut a dozen acres in a day — without once bending over!

McCormick's basic principle has never been superseded, and the most modern combines of today are direct descendants of his invention. But many improvements

and refinements have appeared, among them the anti-friction bearing such as **SKF** produces.

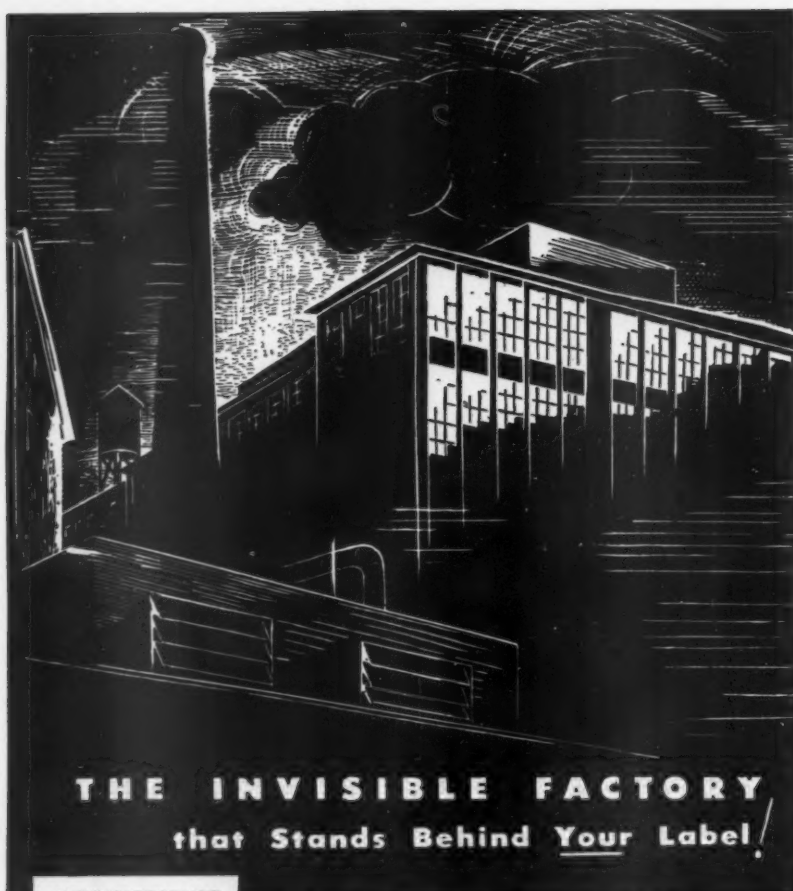
SKF Ball and Roller Bearings improve the efficiency and reduce the operating costs of tractors, threshers, harvesters and other agricultural machinery.

Because **SKF** makes many types of anti-friction bearings, **SKF** engineers are in a position to give you expert help in selecting . . .

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THE INVISIBLE FACTORY that Stands Behind Your Label!

WE CAN PRODUCE
AND PACKAGE
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165,000 Collapsible
Tubes



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Considering our extensive production

facilities, it's an amazing fact—and no accident!—

that not one consumer in a million knows our name!

When we make your cosmetic or chemical product,
our facilities become yours; our factory your own.

Our quality standards are your protection; our economical "know-how" your assurance of a profitable operation. That's why Evans Chemetics is "The Invisible Factory" behind some of America's most respected labels. May we tell you how we can serve you?

EVANS



Evans Chemetics INC.

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In England, Evans Chemicals, Limited

Hardware Short

Industry's latest exhibits point to continued shortage in many lines. Production is high, but demand is unprecedented.

The hardware industry's two latest barometers—the New England Hardware Dealers Assn. annual exhibit and the National Hardware Show in New York—indicate a continuation of brisk business, demand far in excess of supply, and shortages for months to come.

In New York the scramble was unprecedented, with an estimated 40,000 buyers milling around for merchandise. New England's melee was much the same, but on a smaller scale.

Here are some of the impressions buyers took home.

Substitute items: Just about cleaned out. The cardboard clothes hampers



QUARTER HORSE, FULL VALUE

For the farmer, a tractor; for the G.I., a jeep; but for the cowboy, it's a quarter horse (above)—if he can afford one. A blend of Spanish horse and thoroughbred, the critter, originally a ranch worker, has made such a hit since it was first registered in 1940 that rodeo performers and ranchers reportedly have paid up to \$25,000 for one. Last month at the Ada (Okla.) rodeo, 200 showed their prowess—their name suggests the speed at which they cover a quarter mile.

BUSINESS WEEK • Sept. 28, 1946



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AMERICA'S *FIRST and ONLY* NEW POST-WAR TIRE

Firestone

De Luxe CHAMPION



**The Safest, Longest-Wearing Tire
Ever Built—Especially Engineered
for a RAYON CORD BODY**

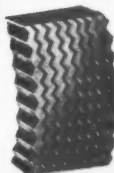
HERE is one post-war product that you can buy right now! The new Firestone De Luxe Champion is the first and only tire that contains improvements in design, materials and manufacturing techniques developed during and after the war. It is especially engineered to take full advantage of the extra strength of rayon cord. It has been tested and proved in millions of miles of service. It sells at regular price! See this safest, longest-wearing tire ever built at your nearby Firestone dealer store or Firestone store TODAY!

*Rayon cord bodies in size 6.50 and larger, extra-strength cotton cord bodies in smaller sizes until more rayon is available

UP TO 55% Stronger
Special Firestone Rayon Cord Body and exclusive Firestone Safi-Sured Construction provide EXTRA PROTECTION AGAINST BLOWOUTS.



UP TO 32% Longer Wear
Wider, flatter tread especially compounded with Vitamic Rubber gives greater resistance to weather and wear and assures EXTRA MILEAGE.



UP TO 60% More Non-Skid Angles
New Safi-Grip Tread provides greater traction and EXTRA PROTECTION AGAINST SKIDDING.



**RAYON CORD
AT REGULAR
PRICE**

THE ONLY TIRES MADE THAT ARE SAFETY-PROVED ON THE SPEEDWAY FOR YOUR PROTECTION ON THE HIGHWAY

Copyright, 1946, The Firestone Tire & Rubber Co.



SHOTGUNS **WINCHESTER** RIFLES
AMMUNITION

In Peace and War, the Stand-by of Generations of Americans

The course of Empire lay westward. The men who carved that Empire from the wilderness depended day and night upon their trusty Winchesters. Quickly Winchester became famous as, "The Gun that Won the West."

From that day to this, Winchester has grown with America. In peace and war, it has gone with her sons to the far corners of the earth. Call the roll of the men who have carried Winchesters . . . pioneers, farmers, hunters, scouts, sheriffs, miners, stagecoach drivers, pony express riders, rangers, cattlemen, cowboys, sheepmen, soldiers, sailors and marines. Read the words of Teddy Roosevelt about Winchester and African Game Trails . . . the testimony of Peary and

Shackleton of Polar fame . . . the exploits of Buffalo Bill Cody.

Winchester's wide national and international fame is back of every Winchester you buy today . . . back of the 22 Rifle that costs only a few dollars . . . of the famous Model 52 that high-scoring small-bore marksmen prefer . . . of the Model 12, the most popular



*Contributing to Your Protection,
Comfort and Well-Being*

slide action shotgun for waterfowl or upland game . . . the Model 21 double barrel shotgun, the choice of discriminating sportsmen . . . the Model 94, the peer of all lever action rifles . . . and the Model 70, the world's most favored long-range rifle for target and game shooting. In ammunition, too, the name Winchester is a guarantee of superior accuracy and dependability . . . in shotshells of all gauges and rim fire and center fire cartridges of all popular calibers.

No wonder the wise man today chooses Winchester, whether his need is for protection or sports. No wonder, too, that people in every division of Olin Industries take pride in Winchester's great heritage.

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BUS



WAA STORE WITH A DISCRIMINATING POLICY

Every day is bargain day at New Orleans' Veterans' Store, a War Assets Administration experiment in giving the ex-serviceman an even chance to buy war surpluses. Only customers with discharge or terminal leave credentials may buy. Opened last week in a onetime Consolidated-Vultee hangar, the WAA store rang up \$175,000 in sales the first day, has been averaging about \$50,000 daily ever since. Hard-to-get items—sheets, silverware, towels, soaps—are leaders in a vast stock of offerings which is expected to keep the store in business until Christmas. Veterans' organizations have blessed the venture, but local department stores have discreetly refrained from any comment.

and cheap dishware of war days are being replaced with genuine stuff. Few manufacturers or dealers got stuck with appreciable quantities of substitutes.

Power tools and appliances: For exhibition purposes only. Even a reasonable supply is still a long way off. Decatur-Hopkins, big New England supply house, so far has received 15 power lawn mowers to fill the 1,000 orders taken at the show.

Toys: Coming back in prewar quality and in fair supply, but demand is much bigger than anticipated. Reason: Hardware dealers have picked toys as a promising postwar line, hence are ordering in above-normal quantities. Distributors say that their toy volume is up two and three times over 1940.

Paints: Try to get 'em. Nothing but white available.

Pressure cookers: Supplies increasing, but demand is immense.

Fishing tackle: No split bamboo rods. Others very scarce.

Electrical appliances: Only a trickle coming through.

Nails: Almost nonexistent. Common complaint is that large quantities are going into the black market. What small supplies are available are being snapped up by private builders who go from store to store buying a pound at a time.

Fencing: Extreme shortage of barbed

wire. Production isn't too bad, but demand is huge.

Flashing copper: One distributor reports sales six times the 1941 volume but still far short of demand.

Builders' hardware: Virtually out of the picture, with such items as locks earmarked for housing projects, not retail shelves.

Ammunition: Still very short, with demand bigger than ever.

Dishware: The one bright spot. Supplies are fairly plentiful, and prices have risen enough to make dishes a real profit-producer.

General outlook: Despite the gloomy prospects for merchandise, the hardware industry won't have to fret. Just enough goods are coming in at high enough prices to allow a profitable turnover.

AUTO PARTS SCRAMBLE

The auto industry is enlarging its list of suppliers as insurance against parts and materials stoppages brought about by strikes.

It was always customary to have at least a pair of suppliers for every requirement, to maintain a check on price levels, and, perhaps, to play off the competitors against each other. In addition, it was not unusual for large producers like General Motors, Ford, and Chrys-

Wives. Be Glad

if your husband
is transferred to
MACON, GEORGIA

Because Macon is an ideal community in which to live and raise your family. You'll enjoy the companionship of friendly and charming neighbors, who are glad you moved to our city. You will live in a pleasant, tree-shaded home,

on a street with lots of green lawn for youngsters to play. Exceptional schools, two outstanding colleges; well-stocked stores; theaters and other amusements to your taste; golf, tennis, swimming and other sports enjoyed all year 'round...these make life worth while in

MACON

If you'd like to know more, just in case you have the opportunity to move here, write for "Living is GOOD in MACON"...it's FREE.

Macon

AREA DEVELOPMENT COMMISSION
P. O. Box 288 • Macon, Georgia

Why

DOES MACON, GEORGIA
ADVERTISE TO
WIVES?

We have no great trouble selling Macon to Top Management. Production and marketing advantages, which mean tangible profits, are sufficient clincher to have this city chosen as location for plants out of which to serve the amazingly grown Southern market.

But many a key man has been blocked off until his wife was convinced that she and the children would be well off in our City. It is a natural thing, and we understand it. So we try to do something about it by running advertising in media of national circulation.

That is typical of Macon's approach to new industry. We try to be realists. We try not to kid ourselves, and we are very careful not to kid business and industry. In fact we spent a lot of money for a hard-boiled study of our area to make sure we could tell the cold truth to those who inquire about Macon's advantages.

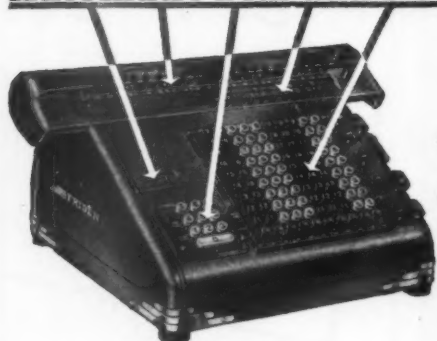
If you want to really get the volume that's in the South for your line—ask Macon, and you'll get the sober facts. Why not write today for our book "Make It in Macon." It is free, of course.

Macon

AREA DEVELOPMENT COMMISSION
P. O. Box 288 • Macon, Georgia

Exclusive **FRIDEN** Features

Automatic Dial and Keyboard Clearance



Assures

◀ **PERFECT ACCURACY**

◀ **INCREASED
FIGURE OUTPUT**

◀ **MINIMUM
OPERATOR EFFORT**

PROOF....in the words of a FRIDEN User

"I have worked thousands of problems without ever having to clear the Dials or the Keyboards. My Friden Calculator *clears automatically* and eliminates the mental hazard of errors caused by uncleared dials or keyboards from previous problems. I can tell by the increased amount of work I produce and by its accuracy...as well as how I feel at the end of the day...this one of the many *exclusive* Friden Features is worth its weight in gold to me."

Call your local Friden Representative and arrange for a demonstration of ALL the exclusive features on your own work and at your convenience.

Friden Mechanical and Instructional Service is available in approximately 250 Company Controlled Sales Agencies throughout the United States and Canada.

FRIDEN

FRIDEN CALCULATING MACHINE CO., INC.

HOME OFFICE AND PLANT · SAN LEANDRO, CALIFORNIA, U.S.A. · SALES AND SERVICE THROUGHOUT THE WORLD

ler to manufacture small runs of the same parts, strictly to check costs.

Today the prewar minimum of two suppliers is giving way to three of a kind. Naturally, the minimum enlarges to as many as eight or ten purveyors of such items as raw steel, or other basic materials.

At the end of the war, despite new acquaintances which had been established with hundreds of companies, the auto makers largely went back to their prewar pattern of parts and materials associations; almost all newcomers were dropped.

Today's enlarged supplier lists are expected to be cut down after the present tight supply situation is relieved. Meanwhile, however, the newcomers to the automotive field are working hard to make permanent footholds for themselves—and many are finding the process profitable.

Self-Service Gas

Buffalo firm develops an automatic coin-operated pump to rescue the night driver. Device makes change, too.

Coin-operated, self-service gasoline pumps may be on the market next year to aid the night driver who can't find an open service station or the driver who can't wait for a gas station attendant.

Walter W. Schneckenburger, vice-president and secretary of the Marine Midland Corp., is head of Gasotera, Inc., a new Buffalo firm organized to develop the coin device. Schneckenburger conceived the idea of self-service gasoline pumps about ten years ago while driving along a lonely highway late one night with his gas tank indicator unpleasantly close to "empty."

• **Manufacturing Setup**—Gasotera, Inc., has entered into an agreement with the Johnson Fare Box Co., of Chicago, and its parent company, Bowser, Inc., of Fort Wayne, Ind., for manufacture of the self-service pumps.

Johnson Fare Box Co. will be the sole manufacturer of coin control units, which will be made available to the twelve U.S. manufacturers of gasoline pumps and sold by them as an integral part of their own pumps. The pump companies will merchandise their products through existing sales organizations.

The present plan calls for a separate coin control pedestal placed adjacent to the gasoline pump. There will be no change in the outside appearance of the gasoline pump itself. The coin unit will interlock with the pump mechanism so that the pump can be used manually by an attendant during the normal oper-

Cut your teeth on stainless ?

If you have yet to cut your teeth on stainless steel, don't think it will be a painful process. Come to Rustless.

We can show you how to cut teeth in stainless without agony, how to machine it on most any type of equipment into gears, shafting, nuts, bolts and all kinds of products requiring high service performance and low maintenance through corrosion resistance. Stainless is not difficult to fabricate, just different. To learn how to take the differences into account, write for the helpful, full-color chart "Machining Stainless Steels." Rustless Iron and Steel Division, THE AMERICAN ROLLING MILL COMPANY, Baltimore 13, Maryland.

Sales offices in principal cities, distributors everywhere.

STAINLESS STEEL SPECIALISTS





IOWA'S *Balanced Economy* ATTRACTS GIANT ALUMINUM PLANT

REALIZING the potentialities of a state, advantageously located for nation-wide distribution, the Aluminum Company of America has decided on Davenport, Iowa, as the site for its new \$30,000,000 sheet mill, and will join other alert industries in utilizing the skilled labor, pleasant living conditions and unexcelled transportation facilities available.

"Iowa is slightly west of the center of population," says Thomas D. Jolly, vice-president of ALCOA, "and that center is rapidly moving toward Iowa. We were also impressed by Iowa's 'balanced economy' — a factor which should minimize depression cycles."

Mr. Jolly and many other leading businessmen have become interested in the Hawkeye state after reading the book, "Iowa . . . Land of Industrial Opportunity", which evaluates the state's industrial and agricultural opportunities and points out the enviable "balanced picture" which the two present. Iowa itself offers a splendid market and abounds in raw materials for industrial development.



➔ To interested executives this valuable reference book containing a complete picture of industrial opportunity in Iowa is available upon request. Included are vital statistics on population, existing industry, agriculture, raw materials, markets, transportation, and living conditions. Write for your free copy now and see how you can profit by bringing your plant to IOWA! Address: 734 Crocker Bldg., Des Moines 9, Iowa.

IOWA DEVELOPMENT COMMISSION

ating hours, but can be thrown over to automatic operation when the station closes.

• **How It Works**—Four coin slots will take half-dollars, quarters, dimes, and nickels. Deposit of coins sets up a credit and turns on a switch, enabling the customer to operate the pump. When the indicated amount of gasoline has been withdrawn, the pump shuts itself off.

If a user is unable to take delivery of the full amount of gasoline for which he has deposited coins, change is returned to him in increments of 5¢.

Actual production of the coin control units will depend largely upon the length of time necessary to gain the approval of the Underwriters' Laboratories and various weights and measures authorities.

• **Production Hurdles**—Most of the component parts of the coin control unit are now standardized production items in the Harris Changer manufactured by the Johnson Fare Box Co. Some modifications may be required to meet specifications of the Underwriters' Laboratories when the unit is applied to a gasoline pump. The company hopes to begin manufacture early in 1947.

The present cost of a gasoline pump is \$261.20. The coin control feature may mean an addition of about \$150.



TRACTOR TRIUMPH

First tractor engineer ever to head the 40-year-old Society of Automotive Engineers is C. E. Frudden (above), president-designate for 1947. A graduate of Iowa State College, Frudden has been associated with the Allis-Chalmers Mfg. Co. since 1929, has been executive engineer of the company's tractor division since before the war. He will succeed L. R. Buckendale of Timken-Detroit Axle Co.

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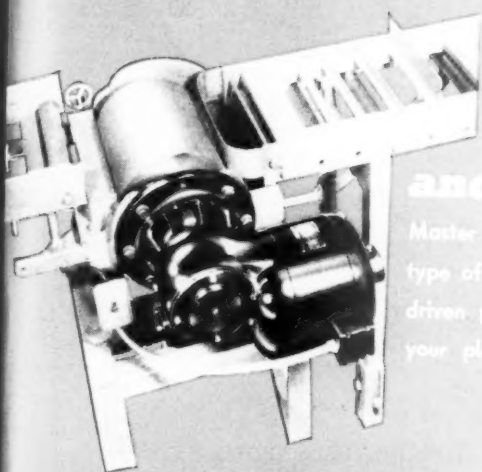
the RIGHT horsepower

Available in sizes from 1/10 to 100 horsepower.



the RIGHT shaft speed

Gear reduction ratios range up to 432 to 1.



and RIGHT where you want it

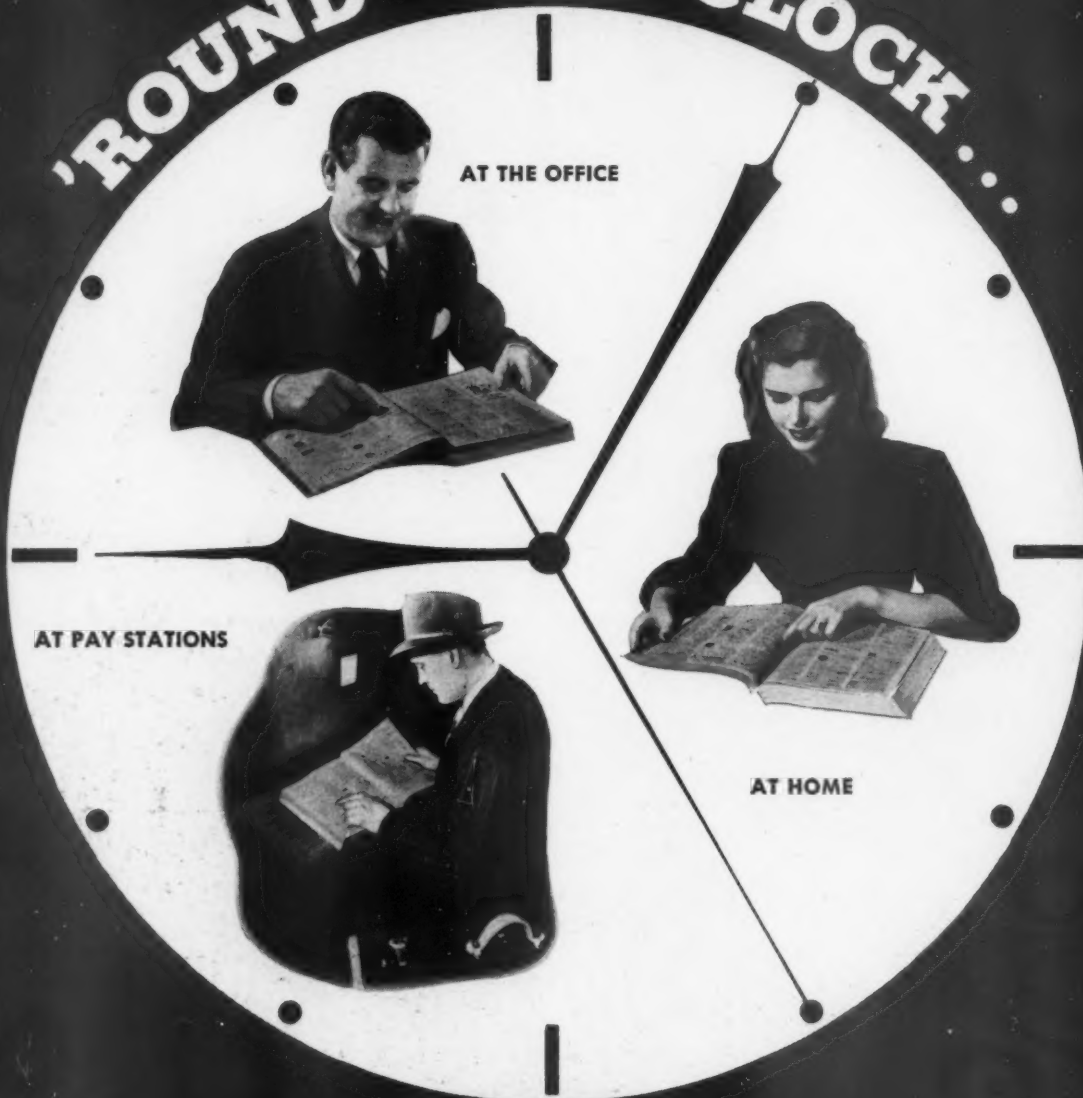
Master Gearmotors are so compact, so flexible, so adaptable to any type of application. Use them to increase the saleability of your motor-driven products . . . improve the economy, safety, and productivity of your plant equipment. They're the commonsense way to use horsepower.



GEARMOTORS

THE MASTER ELECTRIC COMPANY • DAYTON 1, OHIO

'ROUND THE CLOCK...



... the Classified is always available. Surveys made throughout the country show that "Purchasing Agents" for the home and office use the Classified section of the Telephone Directory to find convenient local outlets for branded products, services and other things they need.

There are over 20,000,000 Classified Directories in homes, offices and at telephone pay stations in thousands of cities

and towns. They provide a source of buying information used daily by millions to help solve a great variety of household and business problems.

Through years of experience the public has come to depend on the popular 'yellow pages' to save time and trouble. Because they do just this, the 'yellow pages' perform a real service.



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MARKETING

Curtis Counts Its Chips

Publishing firm analyzes success of its consumer magazines. Ladies' Home Journal to gross about \$19,000,000 this year. Other publications also show marked gains as advertisers increase.

Never underestimate the power of the Ladies' Home Journal, which last week announced that the gross advertising volume of its October issue totaled \$2,146,746.20—assertedly the largest ever carried by any magazine any time.

Insisting that this is no flash in the pan, the Journal boasts that (1) its November and December issues will be within four or five pages (\$50,000 to \$100,000 in terms of advertising revenue) of the October record; that (2) 67% of October's 334 advertisers had advertised in the Journal for at least five years, 44% for at least ten, 19% for at least 25; and (3) in the past seven years the Journal's annual advertising revenue has grown from \$5½ million to an expected near-\$19 million in 1946.

• **Happy Prospect**—In the first seven months of this year, the Journal was top dog in the women's service field with a circulation of 4,110,000 and a gross advertising revenue of \$10,058,000. Other Curtis Publishing magazines similarly were deep in blue chips:

The Saturday Evening Post's circulation stood at 3,467,000—second only to Life's 4,090,000. In number of pages

of advertising the venerable Post ranked No. 1, and it derived a gross of \$24,368,000 from that record volume. (Life's gross intake for the same time period: \$28,799,000.)

Country Gentleman was the leader in farm paper advertising with a gross of \$2,810,000, and No. 2 in farm paper circulation with 2,123,000.

Holiday, which Curtis launched last spring, seems to be passing the initial wobbly period. Rumors that Curtis would junk it—especially after its founding helped pull Curtis' first-quarter net before taxes down to \$995,000 this year (as against \$2,815,000 in 1945)—are dying out. Advertising rates are being revised upwards now that the circulation is averaging around 400,000.

Curtis' distribution for Bantam Books, Inc., 25¢ reprints house which it owns jointly with Grosset & Dunlap, continued to be a very profitable operation as well as a means of assuring broader distribution of Curtis magazines by giving news dealers a fuller line.

• **Planned That Way**—Three winners and a lusty newcomer are no accident. Curtis' analysis of its whopping success

Handling Bales with
BAKER TRUCK proves more
profitable than "Manhandling"

★ Excerpt of letter from The
American Thread Company



★ At our Willimantic plant car loads of raw cotton are received in bales weighing from 450-750 pounds. Prior to the Baker Fork Truck installation, this cotton was all man handled by the use of hand trucks, and cotton was stored "one bale" high on end, in two sheds at opposite ends of the plant. With the Baker Fork Truck we are able to stack bales six high which has increased the storage capacity of our "active" cotton shed by 1500 bales. Normally these 1500 bales would have gone initially into our concrete warehouse, then rehandled and moved to the "active" cotton shed before going into process. Thus we have saved double handling on 1500 bales.

THE AMERICAN THREAD COMPANY
WILLIMANTIC, CONN.



No matter what type of material you handle in your plant, you can cut intraplant transportation, storage or carloading costs with Baker Trucks. Call your nearest Baker representative or write us direct.

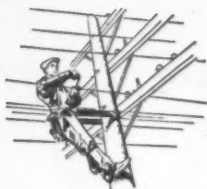
BAKER INDUSTRIAL TRUCK DIVISION

of The Baker-Raulang Company
2164 West 25th Street • Cleveland, Ohio
In Canada: Railway & Power Engineering Corp., Ltd.

Baker INDUSTRIAL TRUCKS



Editors Bruce and Beatrice Gould (Mr. and Mrs.) devised the Ladies' Home Journal formula that is now paying off in record-breaking advertising revenue.



Greater earning power for labor

• Union Metal engineers believe that labor can increase its own earning power by increasing its production efficiency.

That's why Union Metal products—from foundation piling to materials handling equipment—are engineered to help the worker do his job faster, better, with less effort.

This increased product efficiency, the result of continuous engineering research, and progressive improvement in steel fabrication—also means

A Fair Profit for Management

EXAMPLE: Union Metal's steel utility poles. These are designed and engineered for easy, economical installation and maintenance. Their strong, one piece construction makes them long lasting, and provides strength to support multiple utility lines and cables . . . a good investment for any municipality, utility or transportation company.

Maybe there is an idea here for you . . . for the improvement of your product. Union Metal's abilities include all phases of steel fabrication—design, engineering and production. For complete details write The Union Metal Manufacturing Co., Canton 5, O.

UNION METAL
Craftsmen in Steel Fabrication



Editor Ben Hibbs rejuvenated the *Saturday Evening Post*, made it more sensitive to the times, more attractive to feminine and junior readers.

credits (1) editorial alertness, (2) smart promotion, and (3) the favorable advertising climate of the past few years. (Curtis, of course, has not been hindered by the fact that it was one of the first publishers to integrate paper, printing, and publishing, thus assuring stability while many a competitor is sweating out shortages.)

The *Post* and the *Journal* are the most conspicuous examples of editorial policy rejiggered to fit the times. The *Post* admits that prior to its revamping in March, 1942, when Ben Hibbs became its editor-in-chief, it was "like a carping old woman," completely out of tune with the New Deal era. Under Hibbs' direction it became more sensitive to current thinking, shortened its articles and stories so that more varied subjects could be included, added to and pepped up cartoons, and reached out for women readers and younger readers of both sexes. (Currently, men readers do not exceed women by more than 10%.)

• **Successful Formula**—The *Ladies' Home Journal's* rejuvenation came earlier. Eleven years ago Bruce and Beatrice Gould set about modernizing its editorial pages. Their formula was to reflect women's changing interests in a changing world and to write from the woman's point of view but never to write down. Fiction also was upgraded.

In the past three years, says the *Journal*, 52% of its serialized or condensed novels have become best sellers in book form; 37% eventually have been made into movies; 21% have become book club selections.

• **Promotion Lift**—There is traditionally a noticeable lag before editorial improvement is reflected in advertising rev-

of Liberty

SPARKLING COLOR LASTING PROTECTION IN ONE



Better
**Corrosion-Resistant
PLASTIC
COATING**

IF YOU'VE hesitated about using color in your maintenance painting program because "color" just can't take the tough corrosive conditions in your plant — try Neolac. Neolac — the *all* plastic protective coating — is available in a wide range of colors: yellow, red, blue, green, gray, aluminum, interior white, and black.

And — you'll find Neolac a better coating — a different coating. Goes on easy by brush or spray; requires no primer; two coats usually ample; use on metal, concrete or wood; dries in an hour (touch-free in fifteen minutes).

Neolac
**PLANTS AND
EQUIPMENT**
for Safety, Sight
and Longer Life

RESISTS
Acids • Alkalies
Alcohols • Water

**Defies Rust, Age
and Corrosion**

SPECIAL OFFER
for Comparative Test Purposes

One quart of Neolac (any color) and one pint of Neolac Thinner, both for only \$2.80, prepaid anywhere in the U. S. A.

**CHAMBERLAIN
ENGINEERING
CORPORATION**

5000 Brimfield Road, Akron 9, Ohio

enues. Changes in the Post and Journal (and the Country Gentlemen's steady editorial progress, including a special "Country Gentlewoman" section for women) are now bearing fruit from seeds sown as much as a decade ago. But not without some help in the form of smart promotion.

Best example of this is the Journal's "Never underestimate the power of a woman" campaign—a series of light-humored cartoons, designed to get under the skin of advertisers and advertising agencies jaded by pie-chart and bar-chart presentations. It has run for five years, and is still going strong. Heavy newspaper advertising for both Post and Journal harps steadily on editorial content and feature stories.

• **New-Advertisers**—Far be it from Curtis to deny that the advertising currently bulging its books is partly due to the times. Some interesting aspects of this are applicable to other consumer magazines as well.

Some of today's advertisers are war-born companies which are now bringing out completely new products, such as soap companies introducing detergents, or paint companies bringing out DDT insecticides. Still others are old advertisers who are broadening their lines—appliance manufacturers, for example, branching out to include major appliances as well as traffic appliances among their products.

There are also cases of an entire industry suddenly becoming an advertising prospect for consumer magazines. Country Gentleman, for example, re-



Curtis picked Ted Patrick, former vice-president of Compton Advertising, Inc., and recent head of O.W.I.'s Graphics Section, to edit *Holiday*.



COURTESY, THE MUSEUM OF MODERN ART

Back when beauty got the breaks

You never knew how an old movie would turn out.
The proud beauty might be saved by the hero
or she might be saved by a film break in Reel II.
You couldn't expect much from dry, brittle film.
Today, movies are more fun all along the line.
Sound stages in great Hollywood studios
are comfortable despite banks of blistering lights.
Carrier Air Conditioning cools stage-hands and stars.
It speeds the processing and editing of films.
It brings year-round comfort to movie-goers
in theaters everywhere, from neighborhood house
to New York's vast Radio City Music Hall.
Like so many top-flight firms in other fields,

famous movie studios and theaters choose Carrier.
Now Carrier calls on all its engineering skill,
on all its experience with world-wide installations,
to produce new quality products for *YOU*.
You can enjoy the refreshing comfort
of the finest Room Air Conditioner ever built.
You can have a convenient Food Freezer,
or a dependable, efficient Store Weathermaker.
The Carrier name tells you the design is right,
assures you the utmost comfort and economy
in home, office or retail shop. You'll find them
at your dealer's, listed in your telephone book.
Carrier Corporation, Syracuse, New York.

Carrier

AIR CONDITIONING • REFRIGERATION

HOW TO
Prepare
**IN
CORRUGATED
BOXES**

LITTLE PACKAGING LIBRARY
No. 9

H-D

FREE—LITTLE PACKAGING LIBRARY

FREE—LITTLE PACKAGING LIBRARY

REG. U. S. PAT. OFF.
H&D HINDE & DAUCH
PACE-SETTER OF THE PACKAGING INDUSTRY

52



Robert H. Reed, editor of *Country Gentleman*, learned about farming—and farmers—first-hand from a boyhood in the wheat lands of Kansas.

ports that next year aircraft manufacturers will be among its important advertisers; some in that industry estimate that 60% to 65% of their light plane sales will be to farmers.

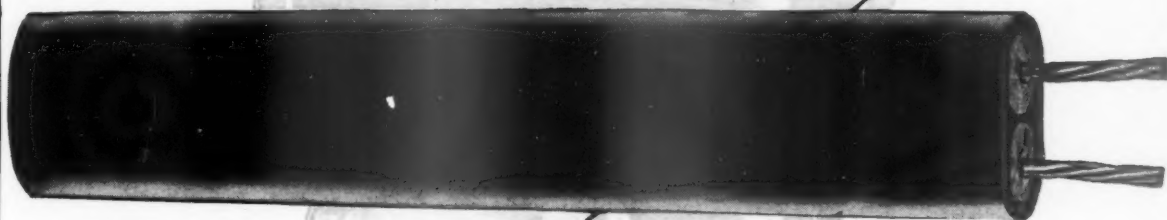
• **Textile Change**—An even broader example is the textile industry, traditionally a “dog” in advertising. Manufacturers of synthetics are now advertising to sell their new products, and this competition forces cotton and woolen manufacturers into advertising. The rather recent trend toward integration in the textile industry (BW—May18’46,p68) makes advertising possible, by affording wider profit margins, and also makes it imperative to establish brand names.

These new categories do not, of course, account for the entire increase in consumer magazine advertising, in Curtis publications or in any others. The old standbys—food, for a significant example—are in there pitching, reflecting today's still-high consumer income.

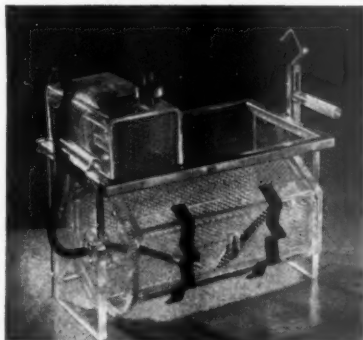
The Owens-Illinois Glass Co. is prohibited from requiring users of its patented vacuum-packing machinery to use only its containers and closures and to refrain from using those made by its competitors, by terms of a consent judgment entered last week in U.S. District Court in San Francisco.

The decision isn't likely to make much of a splash since, as the company pointed out when the antitrust suit was instituted last spring (BW-Apr.27'46, p20), the tie-in feature had been eliminated more than a year earlier from its contracts with lessees of the vacuum-packing equipment.

SURER EVEN THAN A PILOT'S EYES



*... the high-frequency cable
that makes RADAR possible is
insulated with Du Pont polythene*



WHAT'S NEW. Tumbling barrel of "Lucite" used for plating small pieces. Has seamless edges, provides many advantages for industry, including inertness to caustic plating solutions, durability, light weight, and low electrical conductivity. Manufactured by Hardwood Line Co., Chicago, Ill.

RADAR is destined to save even more ships and planes—and lives—in peace than it did in war. No longer need these be lost in fog or foul weather. Present adaptations of radar can locate them... guide them safely to harbor or airport.

In this important work Du Pont polythene plays an indispensable part. The cables that carry radar's ultra-high frequencies must have an insulating material of low electrical losses—which at the same time is flexible at low temperatures. *Du Pont polythene meets both these requirements.*

The demand for Du Pont polythene currently is largely in excess of the supply, but for future product plans it may be to your advantage to know about polythene... and the other Du Pont plastics too. All of them have helped manufacturers in many fields to create new products, to make old ones more

useful, more salable. Write for information to E. I. du Pont de Nemours & Co. (Inc.), Plastics Department, Room 609, Arlington, New Jersey.

Cable shown made by Anaconda Wire & Cable Company, Hastings-on-Hudson, N. Y.



Cut in Nylons

Du Pont blames reduction in yarn allotment to shortages of chemicals and labor. Other products may get bigger share.

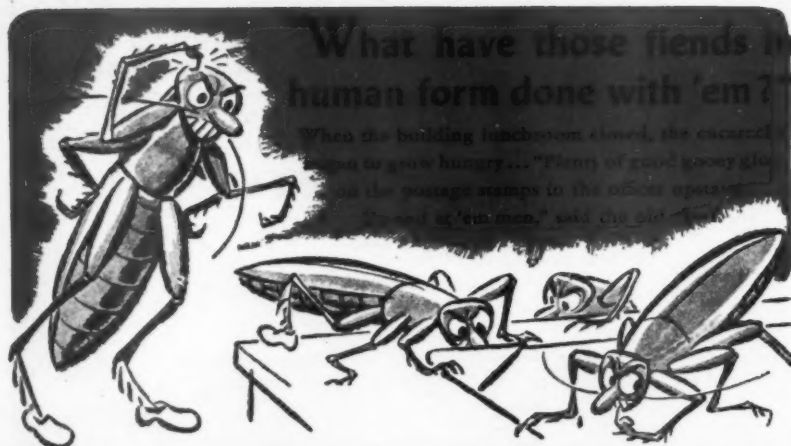
The supply of nylon hosiery, which still has not reached the plentiful or even the readily available stage, is due to get tighter.

• **Allotments Cut**—Last week the Civilian Production Administration let that cat out of the bag when it announced that E. I. du Pont de Nemours & Co. had cut its September allotments of nylon yarn to hosiery manufacturers by 15%. Du Pont explained that the cut was caused by scarcities of certain chemicals as well as shortages of labor, adding that it hoped to be able to ship more than the promised 85%.

Subsequently CPA sought to allay consumer fears of a Christmas nylon shortage, and ward off hoarding, by announcing that production of silk stockings should reach 3,000,000 pairs a month by Christmas. It pointed to the hosiery industry's excellent production record in the first seven months of this year: 350,000,000 pairs (200,000,000 nylon, 115,000,000 rayon, 28,000,000 cotton and wool, and 2,500,000 silk). It added that du Pont is establishing new plants expected to start producing early in 1947.

• **Still a Scramble**—Nevertheless, some facts remain to indicate that those who find nylons for Christmas giving will have to scramble for them: (1) The customary six weeks' time lag between nylon yarn delivery and counter stocking inventories means that the cut will be effective at retail levels about the time Christmas shopping sets in (as a matter of fact, realists in the industry expect the 15% cut to be effective for the rest of the year, not just September); (2) silk stockings, even if more plentiful, will not take up the slack; the price has dropped from about \$3.50 last spring to \$2.75, but that's still too high for the general market; (3) nylon hosiery was never plentiful enough to enable manufacturers and retailers to build up adequate inventories; and (4) thanks to bigger consumer incomes, the demand for women's hosiery of full-fashioned or better-grade seamless type is now about 65,000,000 to 75,000,000 dozen pairs a year, compared with a normal prewar demand of about 55,000,000 dozen.

Hosiery mill operators assert that there may be considerably more behind du Pont's cut than shortages of materials and labor. Because du Pont is the sole supplier of a hosiery yarn that has received more publicity and more



The hungry cucaracha found the desk drawers stamp-less.



The familiar stamp boxes were strangely empty... Horrors!

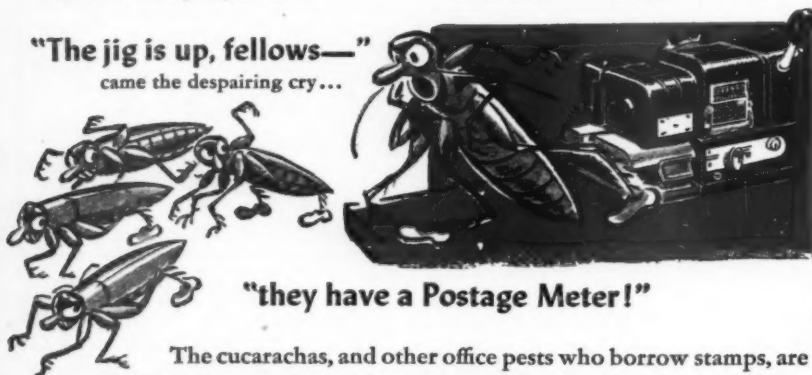


The mailing tables didn't show a snack of stamp anywhere...



Not a single secretary's private stock of stamps was found... Then

"The jig is up, fellows—"
came the despairing cry...



"they have a Postage Meter!"

The cucarachas, and other office pests who borrow stamps, are out of luck in any office with a Postage Meter!... No adhesive stamps, no running short of threes, airmails, specials... The Meter supplies postage as needed, for any kind of mail... *prints* the stamp with postmark directly on the envelope, seals the flap at the same time... stamps a whole day's mail in a jiffy!... Simultaneously prints your own advertisement on the envelope if you like... and does its own accounting!... Easy to operate, time saving, awfully convenient, in any size office. Thousands in use everywhere... Call the nearest Pitney-Bowes office, or write for illustrated booklet.

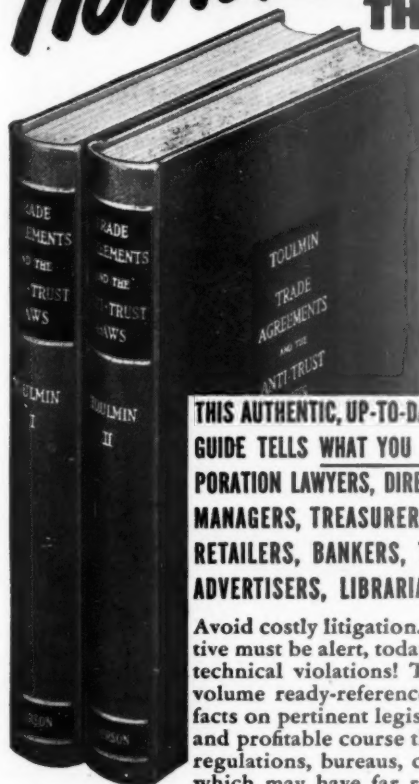


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How to Avoid the Penalties and Pitfalls THAT THREATEN YOUR BUSINESS



TRADE AGREEMENTS AND THE ANTI-TRUST LAWS

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by HARRY AUBREY TOLMIN, Jr.

J.D., LITT. D., LL.D.
of the Bar of the U. S. Supreme Court
Senior Member of the Firm of Toulmin and Toulmin



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GUIDE TELLS WHAT YOU CAN AND CANNOT DO . . . FOR CORPORATION LAWYERS, DIRECTORS, BUSINESS EXECUTIVES, SALES MANAGERS, TREASURERS, MANUFACTURERS, WHOLESALERS, RETAILERS, BANKERS, TEACHERS, ECONOMISTS, EDITORS, ADVERTISERS, LIBRARIANS, GOVERNMENT WORKERS . . .

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ON LEGAL AND BUSINESS PROBLEMS

Col. Toulmin is a member of the bar of the U. S. Supreme Court, attorney for many leading industrial corporations, and an eminent author. His *Law of Foods, Drugs and Cosmetics* is regarded as definitive in its field. He is author of *Invention and the Law, Trade-Mark Profits and Protection*, and has served on the Advisory Board for Ohlinger's Federal Practice. He is a member of the American Chemical Society and other scientific bodies, and senior member of the law firm of Toulmin and Toulmin, Dayton, Washington and London.

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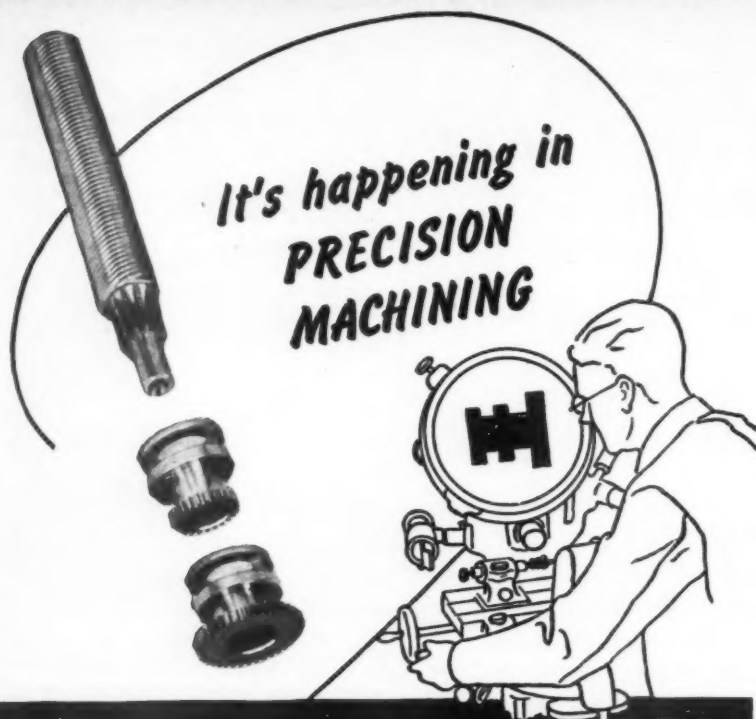
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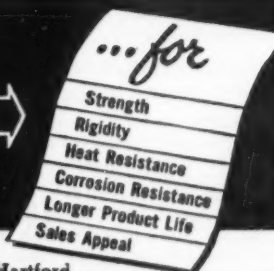
You can start right now in your own plant to cut costs where you use Stainless bar stock. The quickest way is to make sure that every order specifies "Carpenter Stainless". Find out today how you can turn it out faster and at less cost with Carpenter Stainless. Just drop us a note outlining your problem.

THE CARPENTER STEEL COMPANY, Reading, Pa.

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BRANCHES AT: Buffalo, Chicago, Cincinnati, Cleveland, Dayton, Detroit, Hartford, Indianapolis, New York, Philadelphia, Providence, St. Louis



widespread demand than any other, it is in a position to call the tune.

• **More for Others?**—That tune demands markets for more nylon than the hosiery industry could ever consume. Consequently some hosiery men believe that for the moment they are being made to accept less so that new users can be given more.

I.H.C. Experiment

Harvester's contract for exclusive distribution of farm terracing machine may foretell new dealership policies.

Announcement by International Harvester Co. last week that it has taken over the exclusive selling rights of terracing machines made by Servis Equipment Co. of Dallas set the industry wondering whether this marks the onset of a new policy by the biggest manufacturer in farm equipment field.

• **Sales Problem**—Marketing experts have long noted that the far-flung chain of prosperous International dealerships could become a voluntary chain for distributing diversified goods used by the rural market. Wartime diversifications of lines—and sales effort—initiated by implement dealers to help them weather through without normal supplies of farm machinery had already posed a problem on which I.H.C.'s sales department is still working.

Harvester officers assert firmly that taking on the terracer does not set a new policy. The Servis unit had attracted the favorable attention of I.H.C. sales executives in the southwestern area where it has been in use for several years. Servis could obviously make more terracers and more money if not encumbered with the job of getting its own nationwide distribution; I.H.C. already had the distributing organization, and could get the product from Servis less expensively in the volume required by its modest sales potential than by developing a similar line.

• **Throws Soil Uphill**—The Servis terracer is essentially a vertical high-speed screw conveyor without housing, driven off the tractor's power take-off. The screw can be operated at 500 r.p.m., 750 r.p.m., or 1,000 r.p.m., as controlled by the tractor operator. The screw is directly behind a special moldboard plow, which lifts and loosens the soil and delivers it to the base of the screw. The screw actually throws soil uphill into a terrace ridge.

After the screw-type terracer has been run across the hillside to set the general contours of the land to avoid washing, a light dozer blade is used to shape the terraces to exact specifications.



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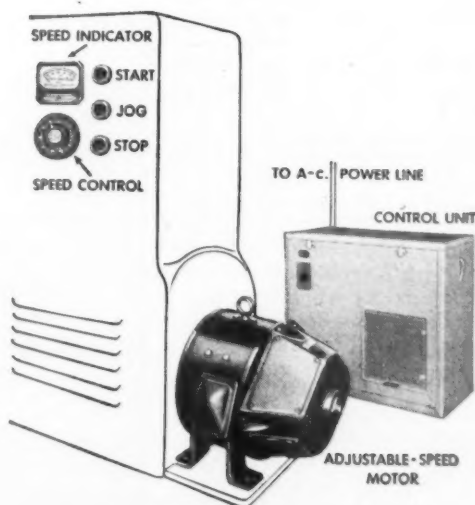
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PRODUCTION

Textile Machines Redesigned

Radical improvements in processing and finishing equipment, including use of electronics, speed production. U. S. looms, however, draw criticism for lagging behind.

Faced with a 219% rise in wages since 1940 and more aggressive foreign competition, the textile industry has turned to mechanization and new design as a means of reducing costs and improving quality and quantity of output.

• **Newcomers Active**—Much of the improvement in mechanization has come through the efforts of materials suppliers, mills, and machinery manufacturers that are newcomers to the textile field. Radical new design, improvements in existing designs, and developments from the electronics field are all serving to increase the productive efficiency of textile manufacture.

Mechanization is only one of the three basic phases in the textile revolution sweeping the country today. Another phase is fibers (BW—Oct.13'45, p48); the other, no less important, finishes, or textile chemistry (BW—Apr. 20'46,p42). Mechanization is by far the most significant phase in terms of increased output and reduced costs.

• **Continuous Processes**—Improved efficiency is being obtained in textile mills through mechanized materials handling between departments, and the development of continuous processing machines. Du Pont, although not in the textile manufacturing business, has developed a continuous machine for bleaching, and two continuous machines for dyeing. General Dyestuff Corp. has produced a machine called a Williams unit—an important multipurpose device that can be used for scouring, dyeing, bleaching, and applying special finishes. Du Pont and General Dyestuff are typical materials suppliers contributing to mechanical development in the industry.

Mechanical developments have come from the mills, too. Uxbridge Worsted Co., Inc., developed, and Warner & Swasey is building, a "pin-drafting" machine to improve the manufacture of worsted yarns. Cramerton Mills, Inc., recently bought by Burlington Mills Corp., has designed a cotton-combing machine to be built by Terrell Machine Co. Dan River Mills is now perfecting a machine for making yarn without spinning, which will be built by Walter Kidde & Co. (BW—Jan.12 '46,p54). Monarch Mills, through the Callaway Institute, has designed a device for assisting "doffers," operators

who remove bobbins from spinning machines.

• **New Tricot Machines**—Of these builders, both W. & S. and Kidde are new to the field. Both are manufacturing other textile machines, too. One of the machines W. & S. is building, the Aveco tricot (BW—Jun.22'46,p32), was engineered by a subsidiary of the American Viscose Corp. This represents that company's first venture into building textile machines other than for its own use. Kidde Mfg. Co., a subsidiary of Walter Kidde, is entering the field for the first time with the manufacture of the intricate Raschel warp-knitting machine.

British Courtaulds is also a newcomer in selling textile machinery and is invading the U. S. market with a tricot machine to be shown in Marcus Hook, Pa., next month.

• **Uses Punched Cards**—Barber-Colman Co. of Rockford, Ill., a relative newcomer to the textile field, is a leader in the production of precision textile machines in the United States. One post-

war machine operates from punched cards to perform a threading-up operation for looms (technically called drawing-in)—heretofore considered too complicated for anything except hand operation. Another, a yet unannounced automatic filling-winding machine, winds yarn at a higher speed than can be achieved by any conventional machines, of which there are several on the market.

Electronics is being applied to textiles. Radio Corp. of America and General Electric Co. are engineering such applications as high-frequency drying and treating of textiles and cloth straightening devices. One mill group has set up a research trust particularly to investigate electronic applications for textile manufacturing. Electrostatic alignment of fibers has already been achieved for flock printing (to give a suede effect) as an outgrowth of the principle used by Behr-Manning to manufacture coated abrasives.

• **Behind in Loom Design**—So far, U. S. looms and staple spinning machines have lagged behind finishing machinery and auxiliary equipment in new designs. U. S. manufacturers claim that this is due to the high degree of perfection already attained in such machinery. Many mill men disagree and point to the Sulzer loom being developed which operates at 230 motions (picks) per minute for a triple-width fabric compared to less than that speed for single width U. S. looms. They also point out that U. S. looms have clumsy superstructures which cause contamination to fall into the cloth. Foreign looms by



NEW POWER FOR GREAT LAKES FREIGHTER

Last week there was something new on the Great Lakes as a snub-stacked, diesel-electric-powered ore freighter, the E. J. Block (above), made trial runs at Lorain, Ohio. The million-dollar modernization job was performed by American Ship Building Co. for Inland Steel Co., which owns the ship; engines were built by Cleveland Diesel Engineering Division of General Motors. Inland foresees gains of reduced vibration, greater maneuverability, added 800-ton capacity—total is 11,000 tons—and an increased speed of 1 m.p.h.

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- WILL DELIVER 1947 SALES RESULTS

few dare to dispute the undeniable evidence that industry has expanded tremendously over prewar levels . . . your own sales department is probably being expanded to reach new sales horizons . . . you have a right to expect expanded service from the magazines that carry your advertising

• In 1947 and 1948, Mr. Sales Executive:

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2. You will probably be selling your goods in a buyers' market.
3. More prospects than ever before will have to be told about your products.
4. You'll have competition with new suppliers as well as the old ones.
5. Your advertising will have to sell goods again for the first time in seven years.

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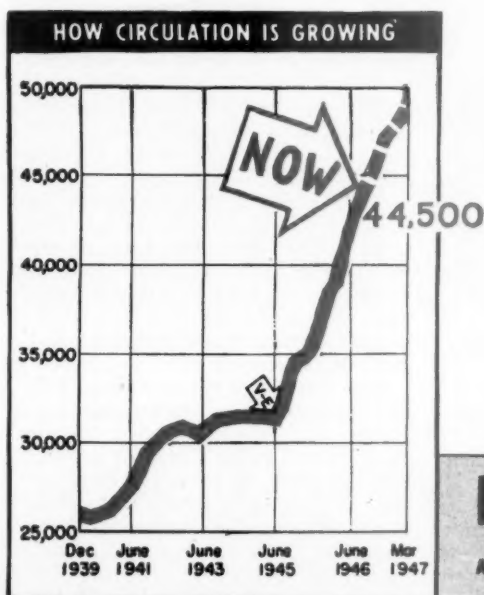
1. FACTORY will deliver 50% more big plants (100 or more employees) than prewar!
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4. FACTORY will deliver this expanded readership editorially conditioned to buy the best equipment.
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To produce 1947 results for its advertisers, FACTORY established a goal of 48,000 *paid* subscribers among plant operating men for December, 1946. Not just *any* plant operating readers, but *top men*, accepted under the most

rigid specifications, we believe, ever adopted by a business publication — and *strictly enforced*. Ask your FACTORY representative to show you

FACTORY'S INTERIM CIRCULATION AUDIT

Names, titles, companies, number of employees — see for yourself the quality and quantity of FACTORY's new circulation as it is being added!



The sales volume you get in 1947-1948 will result from your *total* sales effort — both direct selling and advertising. Prewar performance in *either* will fall far short of doing the job.

For your advertising to the manufacturing industries, concentrate on the buying-important plant operating group. FACTORY, already set for 1947 sales potentials, will do *that* job for you — and do it thoroughly!

FACTORY is the plant operating men's preferred reading. More of them pay to read FACTORY than any other business publication and *now more of them than ever before!*

Sell the men in the plant — who get out the productions — who buy and use modern equipment — the **PLANT OPERATING GROUP**. FACTORY gives you more of them per dollar than any business paper published.

FACTORY MANAGEMENT AND MAINTENANCE

ABC • ABP

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worth \$40,000 —
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... this book tells ...

HOW TO CULTIVATE YOUR TOP EXECUTIVE QUALITIES ...



—and win success faster in
the upper brackets

TOP EXECUTIVES aren't born. They're made. Self-made mostly. Though they rise along different routes, the steps to their success are similar. They follow a definite course of action ... and arrive at the top as planned. Now, here is a practical, inspiring book which brings you this amazing success formula. It outlines a specific, detailed plan for cultivating the qualities which mark the top-flight business leader today—illuminating each point with intimate, on-the-job studies of currently outstanding executives.

Just Out

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By Howard Smith, Personnel Consultant, Noted Lecturer, and Instructor with Dale Carnegie Institute. 255 pages, 5½ x 8, \$2.50.

This book provides a blueprint that shows how you can win executive success. Showing that executive genius is not a quality one is born with, but the result of concentrated effort along the right lines, the book tells how to direct the same efforts and thinking which you already expend daily toward the definite goal of improving your executive ability. Backed with helpful pointers it tells how the up-and-coming executive can make the most of his capabilities, grow in executive stature, and rapidly qualify for the upper bracket responsibilities and rewards.

Some facts this book gives you:

- how to plan advancement
- the secret of executive personality
- 3 best methods for improving personality
- 11 ways to put over your personality
- 24 guides to productive thinking
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Ruti, Benninger, Jaeggli, and others do not have such superstructures.

Importation of foreign looms is expected to increase, and U. S. builders are looking for new designs to offset this threat. Warner & Swasey and the M. W. Kellogg Co. have been mentioned in the trade press as possible builders of new looms.

It was a shock to textile technicians to find that the Japanese had excelled the U. S. in cotton spindle speeds (BW—Aug. 3 '46, p43), and had gone farther in reducing spinning operations (long draft). However, it is known that some new builders may enter this field—Sperry Gyroscope is among those rumored—and that new electric drives permit spindle speeds higher than can be used on conventional machines.

• **Fine-Gage Demand**—Precision machines have long been built for knitting full-fashioned hosiery, but even for this product still greater precision is being demanded. Old 42- and 45-gage machines (28 to 30 needles to the inch) must give way to 51 gage (34 needles) or finer; and even here too there are rumors of new companies to compete with the one big builder, Textile Machine Works. And a relatively new factor in women's hosiery is seamless nylons knit on 400-needle Scott & Williams circular machines. At least two other builders plan to get into this field of fine-gage machines and possibly make still finer machines.

The revolution in textile machinery extends even to the production of synthetic fibers as is pointed out by Courtaulds' buying Industrial Rayon's continuous process, which revolutionizes the production of viscose rayon. Other manufacturers are known to be trying to develop continuous processes to eliminate many of the handlings of synthetics.

• **Industry Benefits**—Terrific demand throughout the world is both stimulating and holding back the revolution in textile machinery. Most traditional builders are so swamped with orders for whatever they want to build—in the main prewar models—that they cannot get time to produce radically new models. But companies not before in the textile machinery field know of the demand and are cutting in, to the benefit of the industry as a whole. And for the first time in many years, textile mills have money for modernization.

EMERGENCY RAIL CONTROL

Emergency use of commercial beamed radio, wire, and cable circuits to transmit electrical impulses for controlling railroad switches and signals was demonstrated successfully last week.

The Pennsylvania R.R., in cooperation with the Radio Corp. of America, Western Union Telegraph Co., and



SHOOTING FOR A RECORD

Benjamin F. Fairless (left), United States Steel Corp. president, and Harry Moses (right), president of H. C. Frick Coke Co., Big Steel subsidiary, put their stamp of approval on the big new tippie at the Frick-operated Robena Mine, near Carmichaels, Pa. First opened for development in 1937, the Robena, which the company says is the world's biggest coal mine, will utilize its new dock to load 900-ton barges in about six minutes—to help speed up shipment to an anticipated 20,000 tons of coal a day.

Union Switch & Signal Co., arranged the test to determine if such circuits might be utilized as standby channels to keep trains moving when regular rail communication lines had been damaged by storms or floods.

A 900-mile circuit was used for the test. It extended from Red Bank, Pa., to Pittsburgh over railroad wires, thence via Western Union wires and cables to Washington and Philadelphia, to New York by beamed radio, back to Pittsburgh by telegraph line, and on to Red Bank by railroad wire.

Over this circuit the centralized traffic controller at Red Bank (controlling signals and switches over a 53-mile stretch of rail to Oil City, Pa.) sent out code impulses to actuate various signals and switches, received back the impulses confirming completion of the operation.

Local Light for Better Sight . . .

DAZOR ALONE Floats!



**MOVES FREELY
INTO ANY
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STAYS PUT—
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Use local light for better sight . . . Dazor *Floating Lamps*. For Dazors bring all-around *flexibility* to individual working areas, giving users full control over both the location and intensity of illumination.

A touch of the hand does it—*floats* the lamp to virtually any position where it *stays put* without further attention. This freedom of movement results from the *floating arm*, an exclusive patented Dazor development.

An investment in Dazor *Floating Lamps* will come back to you many times in higher worker efficiency and morale, in the quality and quantity of work produced, in the prevention of errors, accidents and waste.

Phone Your Dazor Distributor

... get from him the full Dazor story, application assistance and an on-the-job demonstration. Your distributor's name, if unknown to you, can be secured by writing to the Dazor Manufacturing Corp., 4483 Duncan Ave., St. Louis 10, Mo.

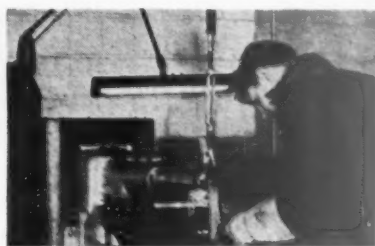
IN CANADA address inquiries to Amalgamated Electric Corporation Limited, Toronto 6, Ont.



Precision machining is made easier, more certain with precise Dazor lighting.



Controlled Dazor lighting helps this dispatcher control train movements.



Intense Dazor illumination is here directed exactly where welder needs it.

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DAZOR *Floating* LAMPS

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EXTRA TRIPS...



.. that's what this construction means to YOU!

Longitudinal and chime seams have been eliminated in these Hackney 2-Piece Acid Drums. There is only one circumferential butt weld. This is located between two I-bar rolling hoops which also serve as protection for the weld. Heavy forged spuds, attached by a two-pass weld, minimize bung failures. Its performance is proved by years of experience.

The strength and durability of this sturdy drum is further increased by reinforced chime protectors. Easy cleaning is assured by the smooth, crack-and-crevice-free interior. After complete fabrication, the Hackney Acid Drum is heat-treated by a special process, giving it increased resistance to corrosion. The result is a sturdy, long-life container, constructed to assure extra trips and lower costs. Be sure to write for full details today.

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A new hydraulic auto jack that lifts the car by the bumper, not the axle, embodies features built into military jacks to take the stooping out of tire



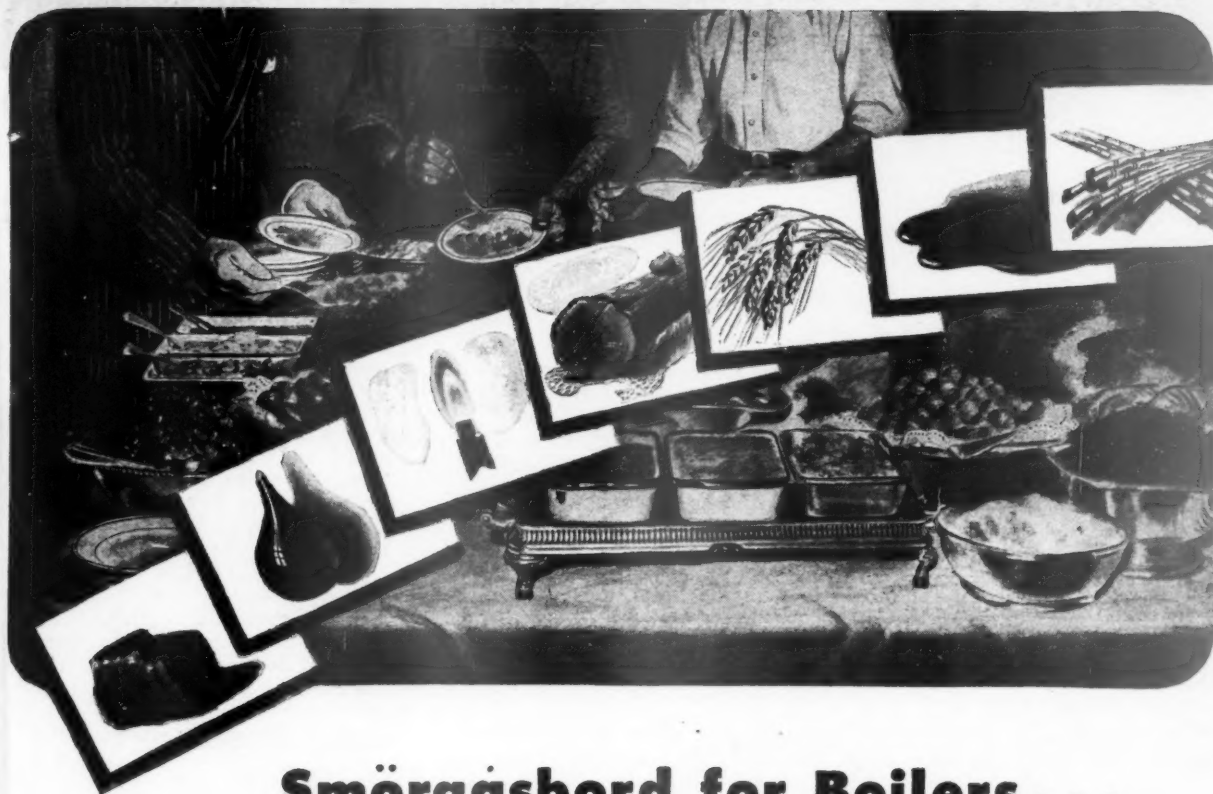
changes on the road. Made by the Menasco Mfg. Co., 805 South San Fernando Blvd., Burbank, Calif., it hooks onto the bumper anywhere from 4½ in. to 20½ in. above the ground. The hook fits all bumper contours. The car is raised up to 18 in. by a hydraulic ram, operated with a short lever. Lowering is done, not by pumping, but by releasing the hydraulic pressure with a clockwise turn of a valve. Built of light alloy metals, the jack weighs only 11 lb., and has been test-loaded up to 1½ tons.

Mildew-Proofing Agent

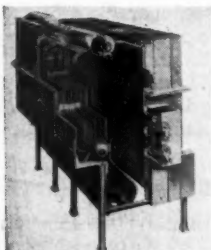
Said to be effective against a wide variety of destructive fungi, a new mildew-proofing compound developed by Rohm & Haas, Philadelphia, can be used for preventing fungus growths on cellar and closet walls and for mildew-proofing shoes and other leather goods. Known as Hyamine 3258, the material was first used to protect the stitching on Army equipment.

Containing 40% active fungicide, Hyamine 3258 is a light tan paste which may be made fluid by heating to 80 F. A typical mildew-proofing formulation consists of approximately 10% Hyamine 3258 with a small amount of isopropanol and a wetting agent such as Triton X-155—all in water solution.

Applications under study include use in dry cleaning formulations, in the treatment of storage bins used for food and other products, and for mildew-



Smörgåsbord for Boilers...



A boiler that's temperamental about its diet can play hob with a power plant. Especially in times like these, when the particular fuel a boiler *likes* may not be the easiest one to get.

So B & W builds boilers and combustion equipment that burn what you can get today . . . and what's likely to be available tomorrow . . . at top efficiency. Coal, gas, and oil (fired singly or in combination) are regular items on today's smörgåsbord for B & W boilers. Occasional entrees include: grain hulls, wood chips, asphalt, sewage sludge, by-products of paper mills, steel plants and sugar mills . . . just about anything that burns.

For example, a large utility desired a boiler that would operate on *four* different fuels. Oil, tar, pulverized coal and pitch were to be fired separately or in combination. Specifications called for changing fuels without shutting down the boiler . . . adequate steam generation with any of the fuels. An unprecedented problem . . . but B & W supplied the right answer.

Helping power plants to get the most from available fuels is only one of the things long years have taught B & W to do well. Industry offers examples of many others. Examples, too, that in those long years B & W has never outgrown the habit of having new ideas . . . ideas for the engineers of *all* industries, in connection with present problems or future plans.



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**How a tough
knife-sharpening problem
was solved by a
Disstoneer**

● It was a problem that had to do with beet shredder knives used by the beet sugar industry. Because of the abrasive material and foreign matter that get mixed in with the beets, these shredder knives are subject to very harsh treatment. Yet the nature of the work requires that the knives be kept sharp and clean-cutting at all times. Resharpening requires both routing and filing, a slow and tedious job when done by hand as it formerly was.

The solution to this tough resharpening problem was found by a Disstoneer*. Machines which do the work automatically, with much greater speed, accuracy and economy, were developed. Today, these routing and filing machines, exclusive Disston products, will be found in practically all beet sugar mills.

Another clear-cut case of Disston leadership



*DISSTONEER—a man who combines the experience of Disston leadership and sound engineering knowledge, to find the *right tool* for you—to cut wood, to cut metal and other materials—and **TO CUT YOUR COST OF PRODUCTION—**not only on special work, but on ordinary jobs as well.

DISSTON Automatic Beet Knife Filing Machines



Machines greatly speed up work and increase accuracy of routing and filing. This prolongs life of knives, produces uniform cossettes and affords better extraction... more sugar per ton of beets. Type C Machine has 2 heads for sharpening. Type F Machine has a single head for routing.



Your operations may be vastly different, but if they include the cutting of heavy timbers, you will be interested in the...



DISSTON CHAIN SAW with Mercury Gasoline Engine

It enables you to cut through heavy timbers in but a fraction of the time required for cross-cut saws. Thousands of Disston Chain Saws are speeding up work and cutting costs in timberlands, on railroads and construction jobs, in mines and many other industries. Write for full particulars and learn how Disston Chain Saws are helping users increase production and profits.

HENRY DISSTON & SONS, INC., 928 Tacony, Philadelphia 35, Pa., U. S. A.

proofing objects such as rope, fence posts, and fruit and vegetable baskets or crates. In the commercial field, the treatment of warehouses and cold storage rooms in which fruits, vegetables, and meats are stored has been suggested. The material is said to be effective as a preservative in cosmetic preparations; in combination with a water soluble insecticide, it could be used for combined protection against mildew and moth damage.

Metal Cleaner

An alkali cleaner, developed by Enthone, Inc., 442 Elm Street, New Haven, is stated to have high detergent ability and, in addition, to have no tarnishing action on active metals, including copper, brass, bronze, nickel, silver, tin, and lead. It can be used as a general plating room cleaner for cleaning of steel and the metals listed. It has good detergent qualities for soak or electrolytic cleaning, and can also be used for scrub cleaning because, according to the manufacturer, it does not contain strong alkalis.

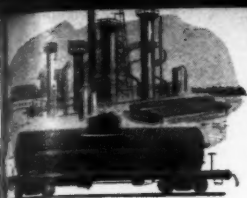
Lightweight Duct

A nonmetallic hot air duct called Multi-Flex, which weighs less than one-half as much as aluminum tubing and will convey air at temperatures up to 500 F, has been developed by United States Rubber Co., N. Y. The duct is made of glass-fabric impregnated with heat-resistant rubber and plastics. It is available in either rigid or flexible types, ranging from 1 in. to 6 in. in diameter and up to 8 ft. in length.

Druggist's Scale

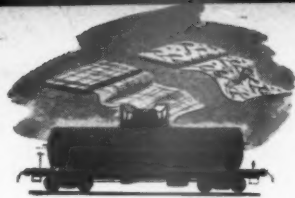
To simplify the preparation of solutions in which the weight of water must be figured, Louis W. Yagle, Wood & Tioga Sts., Wilkesburg, Pa., has devised a new scale graduated in "yagle" units. Each unit is equal to one percent of the weight of a fluid dram of water (454.6 grains). The new scale, it is





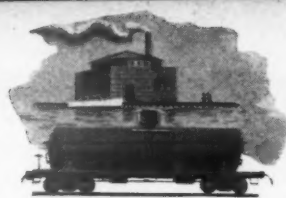
ALCOHOL

Ins. steel car, 6,000 to 10,000 gallon capacity.



CAUSTIC SODA

Heavily insulated steel car, with or without heater coils, 8,000 or 10,000 gallon capacity. Usually specially lined.



CHLORINE

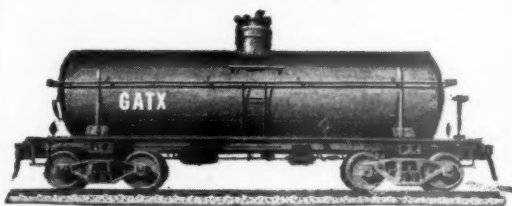
Insulated, welded car; built to withstand pressure up to 500 pounds; 15 or 30 ton capacity.



COTTONSEED OIL

Clean, steam coiled car of 8,000 gallon capacity.

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Tank car transportation of liquids in bulk, pioneered by General American has proved its versatility, its efficiency, its economy.

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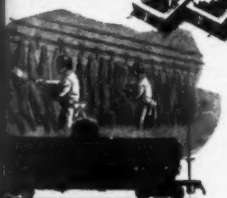
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LARD

Steam coiled car, usually of 8,000 gallon capacity.



WINE

Insulated car with one to six compartments. Interior coated to preserve quality.



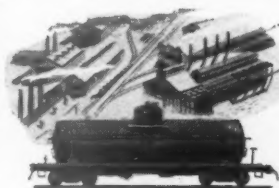
MOLASSES

Steam coiled car with heavy capacity trucks; 8,000 gallon capacity.



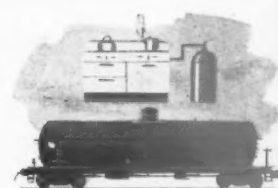
SULPHURIC ACID

Heavily constructed steel car with heavy truck capacity. Equipped to unload through dome.



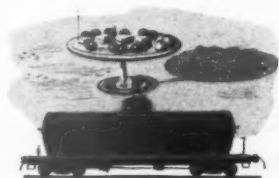
FUEL OIL

Steel car, steam coiled, 8,000 to 12,500 gallon capacity.



PROPANE

Heavily constructed car, welded and insulated. Built to withstand internal pressures to 300 pounds. Capacity 10,000 to 11,000 gallons.



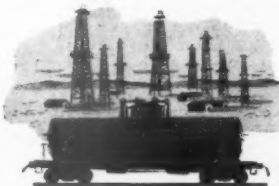
CORN SYRUP UNMIXED

Clean, steam coiled with heavy truck capacity. Usually lined with aluminum paint.



LUBRICATING OIL

Steel car, with steam coils, single or multiple compartment; usually 8,000 gallon capacity.



MURIATIC ACID

Car lined with pure or synthetic rubber; 8,000 to 10,000 gallon capacity.



ACETIC ACID

Aluminum Car, 8,000 or 10,000 gallon capacity.



GASOLINE

Clean car, 6,000 to 12,500 gallons; single or multiple compartment.



ASPHALT OR TAR

Heavily steam coiled car; with 2 or more inches of insulation; steam jacketed outlet; 8,000 to 10,000 gallon capacity.

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Are those key records of production, distribution and finance which you guard so carefully against loss or unauthorized scrutiny protected equally well against deterioration through age and normal handling? Realizing that such records must always remain clear, strong and useful as the day they were written, *take a look at your books.* Is the paper used worthy of the responsibility which it bears? Does it have the special quali-

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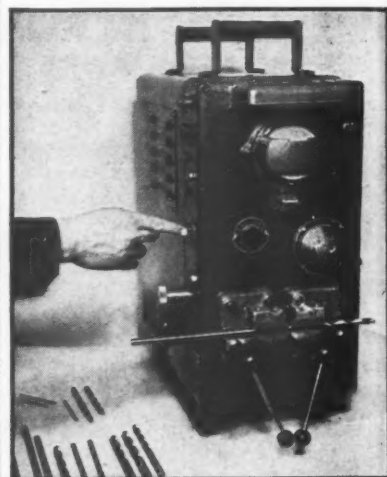
Weston *Makers of Papers
for Business Records*



asserted, will save considerable time for pharmacists and chemists, because unit weights will replace tedious mathematical calculation.

Automatic Butt Welder

Designed for production welding of bar and round stock up to $\frac{1}{2}$ in. in diameter, the model DBW-3A flash butt welder of the DoAll Co., 1301 Washington Ave. So., Minneapolis 4, has automatically controlled motor feed for



materials. This is claimed to insure good welds with inexperienced operators. Welding is completely automatic, controlled by single pushbutton switch. The machine has a built-in grinder for weld dressing, and cam-operated lever clamping. It is designed for 220 v. a.c. 50-60 cycle operation and is available in pedestal or carrying types,

Liquid Defroster

A liquid windshield defroster called Merix Frost-Off has been announced by Merix Chemical Co., Wrigley Building, Chicago 11. This liquid is said to thaw sleet, ice, or frozen rain. According to the manufacturer, it is harmless to auto finishes because it does not contain corrosive chemicals. The liquid is applied with a cloth or cotton.

Steel Frame Motor

Thirty-five percent smaller than preceding motors in the line, the new "Life-Line" motor of Westinghouse Electric Corp., Buffalo, N. Y., has a frame of steel instead of the conventional cast iron. The steel is used in thicknesses as great as if the material were cast iron, to resist corrosion and to increase shock resistance. With the steel frame, over-all motor size has been reduced, since dimensions can be held accurately. Size is further reduced by an improved

NEW DESIGN TECHNIQUE INCORPORATES DUREZ



Convincing evidence of the modern trend towards functional design is effectively revealed in these illustrations of the old and the new Belfone "Maestro" intercommunication units.

Notice how the hard, "mechanical" look of the prewar Belfone has been replaced by an attractive molded Durez plastic housing that gives this new product an air of superior quality, as well as supplying it with many other physical benefits required by the manufacturer.

What This User Wanted

In this connection Mr. Floyd W. Bell, President of Bell Sound Systems, Inc., comments interestingly . . . "Our new design offers many functional advantages in addition to its beauty. The rounded top of the new Belfone eliminates the natural tendency to pile

papers and other material on top of it, building up insulation and hindering the free circulation of air. Since the many curved surfaces and encircling louvers would be impractical in wood, the cabinet is being molded of Durez. Its over-all attractiveness makes it suitable for use on the finest executive desk. The durability of Durez ends for all time the many disadvantages of old-fashioned flat-top housings and the scratching to which wood is susceptible. In addition, its imperviousness to atmospheric conditions provides undiminished lasting beauty."

Unlike other housings of this type which are molded in one piece with an open bottom or back, the new Belfone housing consists of two pieces comprising the front and back sections. These are molded separately and assembled with molded end flanges in a slot. Molds for producing this unique construction were developed by Bell

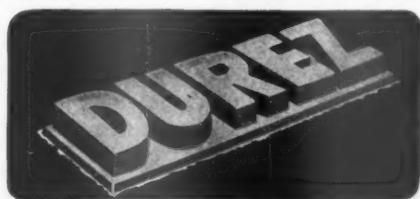
engineers in cooperation with the Plastics Division of Continental Can Co.

What You Can Get

The general-purpose Durez plastic used is one of more than 300 multi-proprietary molding compounds developed by Durez laboratory engineers. Heat resistance, dielectric strength, non-resonance, and impact resistance are some of the important characteristics inherent in all Durez phenolic plastics.

We'd like to work on any of your problems that phenolic plastics may solve. The competent counsel of experienced Durez technicians, as well as a library of proved product development data, awaits your enquiry.

Durez Plastics & Chemicals, Inc., 29 Walck Road, North Tonawanda, N. Y. Export Agents: Omni Products Corporation, 40 E. 34th St., New York, N. Y.



PHENOLIC
RESINS

MOLDING COMPOUNDS

INDUSTRIAL RESINS

OIL SOLUBLE RESINS

PLASTICS THAT FIT THE JOB

Thermoid — For Progress in Industry



← Early air compressor, driven by electric motor, delivering 125 cubic feet of air per minute through Thermoid hose for street railway construction.

→ To get an airport built, fast, a battery of giant Ingersoll-Rand compressors each delivers 500 cubic feet of air per minute through Thermoid Malted Air Hose No. 210. Note how small the mechanic seems beside this equipment.



Today's Thermoid Air Hose is tough. It stands up to flexing, pulsation-frequencies, pressures, hard knocks and abrasion that would quickly destroy the best air hose of a few years ago.

Thermoid's improvements in air hose should interest you, for they are typical of the way we contribute to industrial progress. Through the years Thermoid has matched the ingenuity of engineers and inventors. Making available constantly improved industrial rubber products, we have helped them translate their ideas and blue-prints into equipment able to perform faster and more efficiently.

Consult your Thermoid Representative about your problems. Like so many, you may find, "It's Good Business to Do Business with Thermoid."

Send for our latest Air and Welding Hose Folder #3728 — just off the press!

THE THERMOID LINE INCLUDES: Transmission Belting • V-Belts and Drives • Conveyor Belting • Elevator Belting • Wrapped and Molded Hose • Sheet Packings • Industrial Brake Linings and Friction Products.

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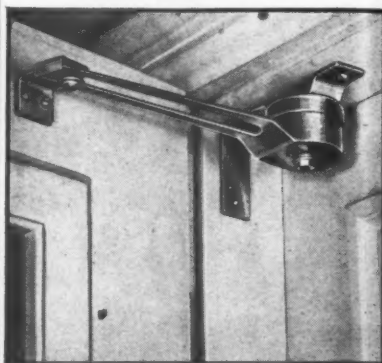
DIVISION OF THERMOID COMPANY
300 Whitehead Road, Trenton 6, New Jersey

Contributor to Industrial Advancement Since 1880

cooling system. The frame is finished with two coats of thermosetting varnish and a final coat of lacquer. The motor, of squirrelcage type, is being produced in sizes from 1 hp. and up.

Door Check

Periodic oiling and servicing are^o said to be eliminated in a new type door control made by B. L. Mallory Co., 1201 E. Eight Mile Rd., Hazel Park, Mich. Mechanical action is so governed that



door movement is relatively fast until the door is almost closed, then is slowed down until in a fully closed position. The device is made of cadmium-plated steel and is manufactured in two sizes, standard and heavy duty.

Concrete Moisture Meter

Determination of the percentage of free moisture in concrete sand can be done with a moisture meter developed by J. Thos. Rhamstine, Harlingen, Tex. The instrument is electrically operated and has a specially designed "prod" or pick-up for insertion into the sand to read moisture percentage. Since it is a constant operating device, the prod can be mounted in the batching hopper and the meter needle will indicate the amount of free-moisture, above the saturated, surface-dry condition.

Quick-Drying Finish

A wood floor preservative and finish, called Liquiphol, said to penetrate, preserve, seal, and finish all types of wood floors in one application, has been announced by the Building Products Division of L. Sonneborn Sons, Inc., 88 Lexington Ave., New York. The new product provides a satin gloss finish, and is said to preserve wood resiliency, to be resistant to abrasion, chipping, and cracking, and to be practically impervious to water and alcohol. The finish needs no thinning or special preparation. The treated area can be rubbed down within 15 minutes after start of application. Waxing, if desired, can be done the day following application.



Chain Lightning

... For Free Enterprise

FREE enterprise! The American profit and loss system! Labor, politics, national trends — where do they go from here? Precisely where the Leadership Youth of today will take them!

Where are we today? Precisely where the forgotten youth of yesterday have taken us.

All sales of goods and ideas are made in minds first before they're made in any other way. That is your own advertising and selling technology.

All new things—steamboats, railroads, air travel, motor cars, radio, television, radar, canned foods, frozen foods—clicked first with Youth or with still youthful minds.

This is it. The place where the character of public opinion, the temper of public attitude, and the quality of the future begins. This is it. The mind of Leadership Youth of America.

To reach the Leadership Youth of America — almost 2,000,000 of them—each one

the point of a chain of lightning followers, is yours to reach, yours to talk to, yours to sell on any sound, valid, honest, product or principle.

You do it by the simple process of advertising to this Leadership Youth in their very own magazines, the Youth Group: *American Girl*, *Boys' Life*, *Open Road for Boys*, *Young America*, *Young Catholic Messenger*. The rate is only \$6,511.50 a page. The ABC circulation guaranteed, 1,850,000.

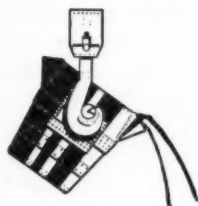
Youth

GROUP

Write for further information to Youth Group,
1 East 42nd St., New York 17; 9 West Washington St., Chicago 2; 136 Federal St., Boston 10.

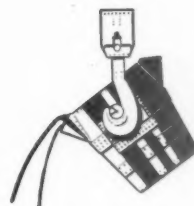


BUSINESS WEEK REPORTS TO EXECUTIVES ON—



HARD-TO-GET STEEL

When Will There Be Enough Of Industry's Basic Metal?



Steel furnaces are operating at extremely high levels. Both rolled and drawn products of the mills are being shipped in volume eclipsing previous peacetime records. But it is still true that the appetites of hungry customers are not being satisfied.

How long will the shortage endure? Into 1947? Or longer?

A careful appraisal of the steel supply situation leads to two major conclusions:

I. If today's business boom continues and industrial production moves to higher levels (Report to Executives; BW—Aug.24'46,p45), it will mean a terrific strain on steel. Almost every steel user will get less than he wants. Some will get even less than they believe they need. Ambitious postwar production goals for autos and gadgets alike are in jeopardy. With every operating advantage, steel mills could whittle down the size of the shortage. But supply is not likely to catch up with demand by mid-1947.

II. If the ideal of full employment is ever to be realized, there will have to be an affirmative answer to the question: Is there enough steel capacity? The steelmakers generally feel that there is. Some business observers do not share that belief.

The short-term and the long-term outlook are projected in this report with an attempt to show: (1) what the steel shortage of today and tomorrow means to specific industries, and (2) what steel products are likely to remain in short supply.



HARD-TO-GET STEEL

When Will There Be Enough of Industry's Basic Metal?

During the closing phases of the war there was a great deal of talk, always in the most glowing terms, about the era of plenty which would follow the end of hostilities. Moreover, manufacturers were drawing up plans to produce unprecedented quantities of automobiles, refrigerators, washing machines, and other things which hadn't been made during the war to meet the unprecedented demand. Auto manufacturers, to cite the case which epitomized the postwar planning of industry, were setting their sights at 6½ million cars and trucks a year, almost a third more than were turned out in 1941.

It isn't, of course, news that production has been limping along far below any such levels. Most of the reasons for this are equally obvious—even the casual newspaper reader must be thoroughly conversant by now with the problems of strikes, shortages, and pricing difficulties which have beset manufacturers from every side.

But what may not be so obvious is that production of autos, refrigerators, farm machinery, and other things made of steel would not be up to the postwar goals even if there had been no strikes or unprofitable price ceilings. The reason is that there isn't enough steel capacity to produce the quantities of these things that people want to buy as fast as they want them or as fast as manufacturers would like to get them on the market.

Because there isn't enough steel in sight to fill everybody's wants, automakers will be lucky to make 5 million cars and trucks in the year ending next June 30, less than 200,000 more than the 1941 total. Manufacturers of refrigerators, tin cans, washing machines, and the thousand-and-one other things which use steel will likewise find that they will be able to get little more steel than they used in 1941.

Lack of steel will not be the chief bottleneck in every line, of course. Some of the other basic metals are also in critically short supply—copper, tin, lead, zinc, and pig iron are the most important examples—and may place a ceiling on production before the limits set by steel availability are reached. Some producers may be able to substitute other materials for steel or to redesign their products to use less steel. Not all types of steel will be equally short so that there may be plenty of steel for some products. Moreover, the government will step in to channel steel to manufacturers of certain highly essential things.

Nevertheless, lack of steel looms as a major limiting factor on production in the months to come. That this will have an important bearing on the economic and business outlook goes almost without saying.

The prospect of a continuing steel shortage provides additional confirmation of the conclusion that increased production cannot be counted upon to quench the fires of inflation (BW—Aug. 24 '46, p47). The fact that production of things made of steel, which top the lists of

consumer and business wants, cannot exceed 1941 rates by more than a narrow margin for a long time to come means that only a portion of the huge accumulated demands for durable goods can be filled by mid-1947.

This factor alone does not clinch the case for continued prosperity, of course. There is still the possibility that the demand for things made of steel might weaken in the next nine months to the point where production would outrun sales. A buyer's strike against rising prices, or a loss of public confidence serious enough to cause consumers and businesses to tighten their belts, or a sudden drop in demand for nondurable goods which would cut incomes and thus reduce the purchasing power available for durable goods, could bring this about. There are as yet no conclusive signs that any of these developments are likely in the next nine months, however. On the assumption that the boom will continue at least through mid-1947, an assumption which underlies all the computations in this report, the fact that steel will be a bottleneck means that inflationary pressures will be stronger and will last longer.

WHY IS STEEL SHORT?

The fact that steel is staying close to the top of the list of critical shortages is difficult for some people to understand. After all, the steel industry supplied almost two-thirds again as much steel in 1944, the year of peak war production, as in 1939, and present steel capacity is a third greater than the 1929 figure.

Great as the nation's steel capacity is, however, it will not measure up to the demand for steel for many months to come. Here are the main reasons why this is so:

(1) Industrial output under full employment will top any prewar year by a wide margin because there will be more people at work than ever before, and because output per worker will exceed the best prewar year. This is shown by the fact that the Federal Reserve Index of industrial production is already 8% above 1941 and 58% above 1929.

(2) Demand for things made of steel is enormous by prewar standards because of the backlog built up during the war. Moreover, the public has the purchasing power to back up this demand.

(3) A dollar's worth of finished goods in peacetime requires about one-fifth more steel than in wartime because more man-hours are needed to fabricate a ton of steel going into munitions than a ton going into civilian products. To take an extreme example, an aircraft engine costs \$10 a pound as against about 40¢ for an automobile. That is why it takes more steel to keep a full employment economy going in peacetime than in wartime.

What this adds up to is that demand for steel will reach record peacetime heights in the year ending next

June. But present capacity of the steel industry is little greater than it was in 1941. The result is a steel shortage which will prove a major bottleneck to industrial production.

Before even a rough appraisal of the dimensions of the shortage and its impact on specific industries can be attempted, the outlook for steel supply and demand must be examined in much greater detail. That this is a risky business, at best goes almost without saying, for all forecasts of the business future can be thrown completely off the beam by unpredictable events. Yet, steel is such a basic factor in so many businesses that it is important to survey the outlook in as great detail as possible, recognizing, of course, that the assumptions which have to be made are subject to revision as the future unfolds.

Although steel made what was perhaps the greatest quantitative contribution to war production of any major industry, the expansion of steel capacity has been relatively small. The huge needs of war were met largely by running mills full-blast—steel mills operated at only 65% of capacity in 1939—and by clamping down

on civilian consumption. Moreover, about a third of the ingot capacity built during the war has been offset by the dismantlement of furnaces which had become hopelessly obsolete. As a result, steel ingot capacity is now rated at 91,900,000 tons, only 10,300,000 tons above the January, 1940, figure.

Practical Capacity Even Lower

There are several deductions to be made from rated capacity before arriving at production potential for the year ending next June 30, however. Something like half of the electric furnace capacity and about a fifth of the bessemer capacity will stand idle in a peacetime market either because such capacity costs too much to operate or because the peacetime market for specialty steels is limited. For this reason, about 3,250,000 tons have to be subtracted from the 10,650,000 tons of bessemer and electric furnace capacity.

A further deduction must be made for government-owned capacity which will not be fully operated for some time. At the end of the war, the government-owned facilities had a rated capacity of 6,940,000 ingot tons (including 1,600,000 tons of electric furnace capacity). Less than half of the steel facilities declared surplus have been sold.

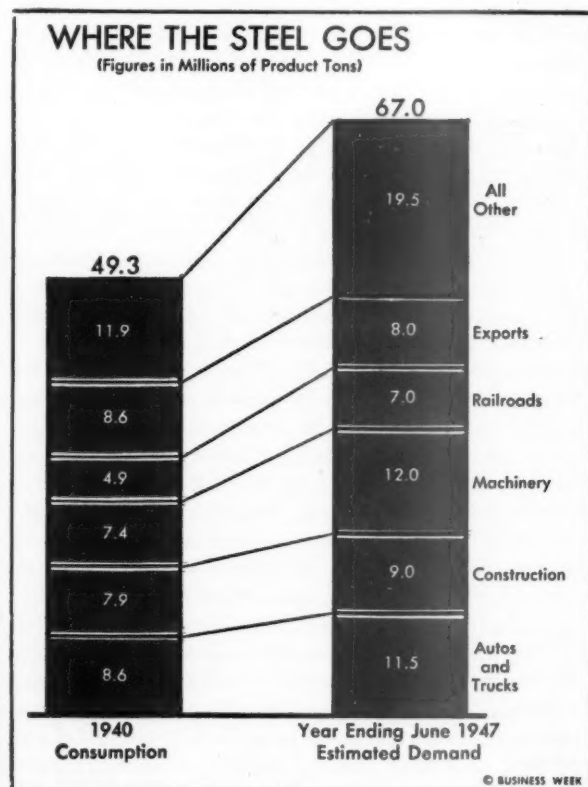
Some of the government facilities can't be adapted to peacetime operations. Others can't be used to any great extent until extensive additions and alterations have been made—U. S. Steel, for instance, finds that the huge Geneva plant cannot be operated at more than a fraction of its 1,283,000-ton capacity until additional finishing capacity can be built. Still others will not be disposed of in time to contribute much of anything to this year's output—the 360,000-ton Canton mill operated during the war by Republic which is still on the books of the War Assets Administration is a case in point. Finally, there is the likelihood that steel companies purchasing government facilities will dismantle obsolete facilities so that there may be little increase in total rated capacity. All in all, it is hard to see how government-owned facilities can contribute more than 3 million to 4 million tons to ingot output in the year ending next June 30.

This deduction, together with that for electric and bessemer capacity, brings practical steel ingot capacity down to around 86 million tons.

Even the most optimistic steel expert would agree, however, that steel operations will fall short of this ceiling for some time to come. Shortages of coke and scrap held operations to 84.9% of rated capacity in July and 88.3% in August and there is little chance that either of these shortages will disappear before the end of the year. Then there is the shortage of freight cars which will hurt steel operations more and more in coming months.

With handicaps such as these, the steel industry will be doing a magnificent job if it can turn out 83 million tons of ingot steel in the year ending next June. Such a record will be possible, of course, only if work stoppages can be avoided. What strikes can do to steel output was illustrated all too graphically in the first five months of this year when 13,000,000 ingot tons of steel were lost.

If the assumption that uninterrupted operations can be



Four great industries—autos, construction, machinery, and railroads—took three-fifths of the steel in 1940 and account for the same share of total demand in the year ending next June 30. Export demand is below the amount shipped abroad in 1940. But other steel requirements are two-thirds higher than in 1940—65% more steel for containers, 75% more for oil well drilling, 65% more in consumers' durable goods and miscellaneous products, and 50% more to build up inventories.

counted on does not prove too optimistic, however, the production of 83 million tons of steel ingots will be converted into 60 million tons of finished steel products (about 30% of the weight of ingots is turned into scrap in the process of rolling sheet, rails, plates, structural shapes, and the other finished steel products). This would top any prewar year except 1941 when finished steel output ran to 62,300,000 tons (and 15% of this went into war production).

THE STEEL MARKET

Even production of 60 million tons of finished steel will fall short of demand if the boom continues. This is the conclusion that emerges from a detailed examination of the probable level of demand in each of the major steel consuming industries. The reasons for this conclusion are given in the following sections which attempt to forecast how much steel each of these industries would like to buy.

• **Autos and Trucks**—The automobile industry has the assembly capacity to turn out 6½ million cars and trucks. That many vehicles would require about 11½ million tons of finished steel when allowance is made for greater-than-prewar replacement parts production. Because of shortages of pig iron, castings, lead, and certain components, it may well be that the auto industry could not meet this goal even if steel requirements were met in full. Moreover, as will be shown later, the chief limiting factor on auto production may be the availability of sheet steel. Yet the announced plans of the auto industry seem to indicate clearly that 6½ million is the figure they are shooting at so that auto requirements can properly be placed at 11½ million tons.

• **Construction**—In prewar years, a ton of finished steel was shipped to the construction industry for every \$1,050 of new construction. In the next year, however, less steel will be needed per dollar of new construction both because housing will make up a larger proportion of total building and because other building costs have gone up more than have steel prices. For these reasons, the \$12 billion of new construction scheduled under the Wyatt program will take about 9 million tons of finished steel, more than a million tons less than went into the \$10,200,000,000 of new construction in 1941.

• **Exports**—There is no way to calculate precisely how high export demand might run. Certainly foreign nations need, and have the funds to buy, more steel than they took even in 1940 when steel exports reached a record level because of the 4 million tons supplied for the British war effort. As a rough guess, exports might run to 8-million tons if the steel were available. Actually, the steel shortage will hold foreign shipments far below this level.

• **Railroads**—Despite the fact that the railroads got about one-fifth more steel on the average during the war years than they used in 1940, the wartime burden on the roads was so great that there is a substantial backlog of demand. The freight car shortage which is currently plaguing business would not disappear even if car building shops operated at capacity for the entire year. Then

there is the fact that the roads have announced ambitious programs for modernizing passenger equipment. These demands for cars, together with the demand for rails, track accessories, and structural steel for modernization and maintenance of right-of-way, put railroad requirements at about 7 million tons, almost 50% above 1940.

• **Producers' Durable Goods**—Manufacturers of other producers' durable goods will be subjected to a very considerable squeeze if they only get the same proportion of total finished steel output they got in 1940. In that year, manufacturers of producers' goods other than commercial motor vehicles and railroad equipment took 7,400,000 tons, 15% of total output. The same share of output in the next year would work out to 9 million tons or only 22% more than these industries got in 1940. That this would fall far short of demand is shown by the fact that the Federal Reserve Index of machinery production reached 245 in July, 80% above the 1940 average. These industries could probably use more than 12 million tons of steel in the year ending next June 30.

• **Containers**—Demand for steel by the container industry shows an even greater advance over the prewar level. If enough tinplate and sheet could be produced, there is little question but what enough containers could be sold to use up at least 5 million tons of finished steel, more than twice 1940 consumption. Production of almost everything that is, or can be, packaged in cans or other steel containers is far above prewar—witness the 75% rise in malt beverage production and the 40% increase in output of processed fruits and vegetables.

What is more, many container users who were forced to shift from steel to glass or fiber containers during wartime would like to go back to steel. (Output of steel containers was actually lower in 1945 than in 1941 because of government restrictions; meanwhile, production of glass containers rose 50%, fiber drums multiplied sixfold.)

• **Petroleum and Gas**—Similarly, activity in the petroleum and gas industries is well above prewar—crude petroleum is 30% ahead of 1940 and natural gas, 50% ahead—so steel requirements can be expected to top prewar by a good margin. In addition, well drilling had to be curtailed during wartime because of manpower and materials shortages so there is much lost ground to be made up. Furthermore, widespread adoption of techniques for deeper drilling means that more steel will be needed per well. All these factors lend support to estimates which place the steel demand of these industries at more than 3½ million tons, 55% above 1940.

• **Inventories**—What complicates the steel outlook more than any other single factor is the widespread and urgent demand for steel to build up inventories. This demand is troublesome because no one knows how big it is, because the bulk of it will be added to consumption requirements in the last half of this year, and because it will disappear once pipelines have been filled. For the same reasons, the demand for inventory building occupies a key position in the steel outlook because the size and timing of this demand will determine, more than any other single factor, the intensity of the steel shortage.

During 1940, when industrial production rose 15%

STEEL PACES INDUSTRIAL PRODUCTION



Steel has long been a feast or famine business—in prewar years steel output rose faster than general business in boom times and fell further in slumps. The war upset this relationship because more man-hours are used per ton of steel in munitions than in civilian goods. But now the old rules are working again so, even though industrial production will be around 20% below the war peak in early 1947, steel demand will reach record heights.

between January and December, steel consumers added to their inventories to the tune of 3,300,000 tons of finished steel. Barring widespread strikes, over-all industrial production should rise by some 20% between the first half of this year and mid-1947—this would indicate the need for almost 4½ million tons of steel merely to support the increase in output, if the prewar relationship between inventories and industrial production holds in the coming months.

In addition, steel inventories at the start of the third quarter of this year were abnormally low because consumption during the first half outran steel shipments (which were held down by the steel and coal strikes). Estimates based on Civilian Production Administration figures show that steel inventories of 6,916 metalworking plants on June 30 had been drawn down to less than two and one-half months' consumption at the second-quarter rate. To bring stocks up to a normal level (three to three and one-half months' supply on the average), these plants would have needed 1½ million tons of steel. If other steel consumers were as bad off as metalworking plants—and there is good reason to suppose that they were because of the slump in steel deliveries during the first half of the year—another 1½ million tons would have been required.

Of course, much depends on the business outlook because demand to build up inventories can evaporate rapidly once industrial production shows signs of faltering. Nevertheless, on the assumption that capacity pro-

duction and full employment will continue throughout 1947, a 5-million-ton figure for pipelining seems, if anything, conservative.

HOW MUCH? FOR WHOM?

The sum of all these estimates of demand for the year ending June 30, 1947, comes to 67 million tons, 11% above probable supply, as the following table shows (figures in millions of product tons):

Autos and trucks.....	11.5
Construction	9.0
Railroads	7.0
Other producers' durables.....	12.0
Containers	5.0
Petroleum and gas.....	3.5
All other industries.....	6.0
Exports	8.0
Increase in inventories.....	5.0
TOTAL	67.0

The first thing that can be said about the impact of the shortage on steel consumers is that it will not be handled by requiring each steel buyer to take 11% less steel than he would like to buy. Aside from the fact that this wouldn't be a practical way to distribute the shortage, there are two reasons why this is so.

In the first place, the government will use its priority powers to make certain that steel requirements for veterans' housing, food production and packaging, and essential rehabilitation of devastated areas are met in full. In addition, the government will lend a hand to small business by seeing that steel warehouses, the main source of supply for small users, get their fair share of total output and will use priorities to provide steel for urgent military programs and to break bottlenecks. As things now stand, however, priorities will cover less than 10% of total steel output.

The remainder of the steel produced is to be parceled out by steel companies on a fair and equitable basis. Greatest emphasis will be placed on the share of total output taken by different customers before the war for that is probably the best practical way to determine what is fair and equitable. There will be numerous modifications of this principle, of course—as long as ceiling prices continue to squeeze profit margins, steel mills will attempt to concentrate on their most profitable items and to sell to customers who are nearest the mills. Yet the burden of proof will be on the customer to show why he should receive a larger quota than he took in prewar years.

For this reason, the prewar distribution of steel output will play an important role in determining the extent to which the needs of different industries are met. And primary weight will be given to the record in 1940, the last normal prewar year. All of the major industrial groups except autos, construction, and export will be seeking a larger share of total steel in the year ending next June than they got in 1940 (chart, page 73).

Even though export demand makes up a smaller proportion of total than in 1940, export quotas are likely to be set far below demand. This is because exports were

unusually high in 1940, accounting for 17.5% of total shipments versus an average of about 6% during the 1930's. Thus, it is doubtful whether exports in the year ending next June will run much over 4 million tons.

On the other hand, construction demands will be met in full and auto producers will get a quota about equal to the prewar figure. (This would give autos 10,400,000 tons, enough for 5,900,000 cars and trucks, but the shortage of sheet steel may limit output to 5,000,000 to 5,500,000 units.)

This adds up to the fact that manufacturers of most durable goods will not be able to get all the steel they could use. What is more, individual manufacturers who are trying to capture a larger piece of the market will find it increasingly difficult to get the steel necessary to support their expansion plans.

It is obviously impossible to figure out with any great accuracy what effect these factors will have on different consumers. The one thing that seems certain is that only about half of export demand will be met—this will reduce the gap between demand and probable supply to less than 4 million tons. The fact that there won't be enough steel to meet the demand for inventory building will narrow the gap. Finally, shortages of particular steel products may reduce the amount of steel that can be used by the railroads, the container industry, and by manufacturers of durable goods. But no matter how the figures are juggled there is no escaping the conclusion that there will not be enough steel to go around.

About the only bright spot in the steel outlook is that, as far as it is possible to see, the shortage is more severe now than it will be by the middle of next year. On the one hand, steel demand now is about as high as it will go in the next year. The bulk of the demand for inventory building will be added to consumption demands in the third and fourth quarters of this year—inventories drawn down during the steel and coal strikes must be replenished to get production rolling. Moreover, industrial production will be close to the ceiling set by lack of manpower by the end of the third quarter so that the consumption requirements of most industries will be close to their peaks. This means that total demand will be spread fairly evenly over the four quarters of the year.

Supply Will Increase

Supply, on the other hand, will increase gradually from quarter to quarter. Prospects are that the scrap and coke shortages which have been so troublesome can be conquered by early 1947—this would permit a rise in ingot production of around 8%. In addition, the flow of ingots from surplus war facilities should increase steadily, adding approximately 3% to total ingot supply by next June.

The fact that the shortage will ease as time goes by will not mean that it will disappear within the next year, however (cover chart). On the assumption that industrial production will continue at full-blast throughout 1947, demand will exceed supply even after mid-1947—the rise in industrial production stemming from increased productivity (and from the rise in employment through the normal growth in the labor force) plus the continuing

strong demand for exports will more than offset the slackening in the demand for steel to build inventories.

The shortage will ease in the sense that, whereas steel supply in the current quarter may be as much as 15% below demand, the margin between demand and supply may be reduced to 5-8% by mid-1947. It is perhaps superfluous to add that any predictions of the demand-supply picture a year from now are subject to many important qualifications—supply estimates will be way too high if strikes tie up steel and coal again; demand estimates will be way out of line if, as now seems unlikely, a recession develops in 1947.

Paradoxically, some consumers may find it harder to get steel even though the over-all steel shortage is easing. The reason is that a number of major consumers took less than their proportionate share of steel output in the first half because their plants were strikebound or beset by reconversion difficulties. Thus, the automobile industry received only 913,000 tons of steel in the first quarter (10.7% of total shipments) whereas requirements for the 6½-million-unit annual rate come to 2,875,000 tons a quarter. Similarly, shipments to the construction industry will increase faster than total steel output. As a result, other consumers will have to be content with a smaller share of total output in future quarters.

WHERE ARE PRICES GOING?

The only sure thing about steel prices is that they are going up. Demand will outrun supply for some time to come and that always puts pressure on prices. More important, however, is the fact that profit margins have been squeezed as costs have risen faster than prices; even the desire of steelmakers to hold down prices may have to give way before rising costs.

While a definitive answer to the question of how much steel prices will rise is beyond the scope of this report, a brief look at some of the more important factors affecting costs and prices may help give a rough idea of what to expect.

Steel prices went up \$5 a ton last February to offset the 18½¢-per-hour wage increase. Since that time, other costs have been going up: Coal now costs 40¢ more per ton; iron ore prices have advanced 50¢ a ton; byproduct coke has gone up \$1.35 a ton; and a \$2 increase in scrap prices is being considered. Effect of these increases would be to raise steel costs by about \$3 a ton. On top of this, the 6½% emergency increase in freight rates (which will be followed by an additional raise) will add to steel costs.

The relationship between steel costs and prices is so complex that it would take a major research job to say just how much of a price increase would be justified under OPA formulas. What does seem certain, however, is that average steel prices would go up in a free market by something like \$2 to \$3 a ton. They probably would not rise more than that because steelmakers have a genuine interest in holding down prices to discourage competition from substitute materials.

It is too early to tell how ceiling prices will affect steel

earnings. Their effect on steel production, however, is all too apparent. Ceiling prices have completely distorted the output of finished steel products (box, below). This has aggravated unnecessarily the impact of the steel shortage on production. It makes little sense to cripple the housing program by stifling the production of nails; or to hold up auto assembly lines by making the production of spring wire for seat cushions unprofitable; or to encourage the many other distortions in steel output which have been inevitable under OPA regulations.

Government officials are, of course, aware of these distortions and there have been repeated attempts to juggle the ceiling price structure to get balanced production. The problem is so complex, however, that the chances of straightening out steel production by such expedients are exceedingly slim. A wiser course might be to permit decontrol of steel prices even though demand at ceiling prices exceeds supply. The benefits to industry in general resulting from balanced steel production would probably offset the price increases which

Product Shortages Range From Sheets to Nails

The steel shortage can be even more serious than the over-all figures show if it is concentrated in a few critical steel products. This is so because steel finishing capacity cannot be readily shifted from one product to another—excess capacity for rolling structural shapes cannot help make up a deficit in sheets. Moreover, the important thing to the steel consumer is the demand-supply relationship of the steel products he uses—if he can get only half the sheets or wire springs he needs, he will not be much interested in the fact that he can get plenty of plates.

Forecasts of demand and supply for the various finished steel products are subject to all of the hazards surrounding forecasts of demand and supply for total finished steel. In addition, the forecaster must attempt to take account of the fact that there is some flexibility in finished steel output—ingots can be diverted from rail mills to sheet mills, for instance. For these reasons, the following discussion of the outlook for each of the steel products which are expected to remain in short supply is subject to the important qualification that it is based on things as they now appear—later developments may modify many of the conclusions.

Light Flat Rolled Products

The outlook for these products (sheet and strip for sale and for further conversion into tin mill products) can be summed up succinctly: Capacity, while expanding, will average about 10% above 1941 during the coming year, whereas producers of autos, refrigerators, containers, and other major users are aiming at goals 25-30% above 1941. Result is a continuing shortage which will ease gradually as new capacity comes in, but which will persist past the middle of 1947.

In 1941, production of light flat rolled products totaled 21,000,000

tons. A recent survey by the American Iron & Steel Institute showed that sheet and strip capacity at the end of June was a million tons greater than in 1941 and that another 2,500,000 tons would be added by mid-1947.

Consequently, present capacity is somewhere between 22,000,000 and 24,000,000 tons, which puts maximum possible output for the year ending in mid-1947 at around 23,000,000 tons, assuming that enough ingots will be available.

Demand is probably close to 26,000,000 tons and would break down something like this: 4,000,000-4,500,000 tons for blackplate and tinplate; 2,000,000 tons for galvanized; 8,200,000 tons for autos and trucks; 2,100,000 tons for construction; 1,200,000 for containers; 2,600,000 for export; and 5,700,000 for all other uses. In addition, most consumers are operating on uncomfortably low inventories so that total demand is even greater. By mid-1947, however, completion of the expansion program should bring total capacity close to the level of demand.

Galvanized sheet will be particularly tight because shortages of steel, galvanizing capacity, and zinc will hurt production, while demand will be boosted by requirements for veterans' housing.

Tinplate

Tin mill products (tinplate, short tone and tin mill blackplate) will remain tight through most of 1947 because of shortages of sheet and strip and of tin. Figures for the fourth quarter 1946 show that almost 650,000 tons will be required for uses classified as essential (food, drugs, and essential exports) leaving only 200,000 tons for all other uses which will cover only a small portion of unrestricted demand. As a result, control of tinplate distribution as well as restrictions on the use of con-

tainers will not be eased much until late 1947.

Wire Products

OPA controls, which wrecked the normal production pattern, and strikes, which led to a shortage of rods for wire production, explain the shortages of nails, bale ties, and spring wire for auto seats which developed during the first half of the year. In each case, OPA stepped in, after the shortage had become severe, and upped ceilings in an attempt to straighten out production. But it will take time to get back to normal. Producers of auto spring wire made long-term contracts for other products when they found auto wire unprofitable, so the shortage will last until these are filled. Nail shipments were lower in July than in April (partly because of hot weather) and must rise 25% to meet the 66,000-ton goal set by the Civilian Production Administration for September, a goal which is admittedly below full needs.

Rails and Track Accessories

Some estimates place the demand for rails as high as 3,000,000 tons as against capacity of only 2,400,000 tons for controlled-cooled rails. Rails, however, are a low-profit item in normal times and are loss items for many mills today, so steel may be diverted to other products. Production of track accessories has also been hard hit by diversion of steel to higher profit items.

Other Products

There is ample finishing capacity for other steel products. Consequently, production will be limited only by the over-all shortage of ingot steel and, as long as OPA controls last, by the relative profitability of different items.

would follow. Furthermore, there is always the possibility of recapturing control of prices if, as seems unlikely, average steel prices should rise more than costs justify.

STEEL FOR FULL EMPLOYMENT

There are two schools of thought on the question of whether present steel capacity would meet the needs of a sustained full employment economy. Steel industry spokesmen generally maintain that the long run problem will be too much, rather than too little, capacity. Yet here and there a few careful analysts are beginning to say that steel may be a bottleneck to full employment.

Barring prolonged strikes, the steel industry is confident that steel supply and demand will be in balance in mid-1947. By that time, supply will exceed 65 million tons of finished steel a year, an amount which the industry thinks is more than adequate to support full employment.

To support this argument, steel industry spokesmen cite statistics showing that only once in peacetime has steel demand come within 12,000,000 tons of present capacity and that there have been only three times in all the years prior to 1940 when civilian consumption topped 40 million product tons. To clinch the argument, they cite a computation which shows that the sum of the peak steel demands during the past two decades for each of the important steel consuming industries is well within existing capacity.

In the longer run, the steel industry is concerned about what will happen to steel demand once the accumulated backlog for things made of steel has been worked off. Historically, steel has been a boom and bust business, so realistically minded steelmakers are more concerned about getting ready for the day when demand will begin to fall off than about estimating steel requirements for a sustained full employment economy.

These are the reasons why the steel industry is not building new ingot capacity but is pushing hard to enlarge finishing capacity. The construction that is going on is confined almost entirely to modifications and additions to existing capacity which are designed to increase finishing capacity for specific products, such as sheet and strip, or to step up efficiency. Moreover, as surplus war capacity is purchased from the government, high cost capacity is being retired.

The decision not to expand raw steel capacity is a crucial one. This is so because it takes two to three years to build new capacity. If we find next year, or the year after that we cannot produce enough steel to keep industry going full-blast, it will probably be too late to do much about it. The consequences of a prolonged steel shortage would be serious indeed—industries using steel would not be able to expand enough to meet demand and, since our economic machine lacks the flexibility to adjust smoothly to such a basic bottleneck, the result would be unemployment which could touch off a major recession.

It is this danger that worries the people who say that we lack the steelmaking capacity to support a full em-

ployment economy. Their analysis runs something like this: In prewar years the Federal Reserve Index of industrial production and steel consumption maintained a consistent relationship to one another—consumption of finished steel rose by 5,750,000 tons for every ten-point rise in the Federal Reserve Index (chart, page 75). With full employment, industrial production in the second half of this year will reach 190 on the Federal Reserve Index and will continue to move up 6% or so a year as productivity advances and the labor force grows.

Consequently, there would seem to be a strong presumption that, if full employment continues, the steel shortage is likely to get worse, rather than better, after the middle of 1947.

Those critics who foresee a possible steel shortage claim that the argument of the steel industry that capacity is far above consumption in any prewar year is not convincing. Our economy is constantly growing despite booms and depressions—the normal increase in the labor force is still over half a million a year and productivity has been rising by 3% per year—so we need more and more steel as time goes by.

A Challenge to Steel

Admittedly, it would be the greatest folly for steel companies to start building new capacity merely because the past relationship of steel consumption to industrial production points to a steel shortage. What the relationship does suggest is the necessity for a thorough and careful survey of steel requirements under full employment. Only by an industry-by-industry, product-by-product, survey is it possible to determine how much steel capacity will actually be needed.

Because of the key role played by steel, the question of whether steel will be a bottleneck to full employment is important not only to the steel industry but to business at large and to the nation as a whole. If we are ever to achieve stable full employment, it must be based on careful economic planning by business to make sure that all the gears mesh when the economic machine is in high gear. A steel shortage is one of the important things that would throw the machine out of gear.

For this reason, the suggestion advanced by some economic experts that the steel industry should launch a major investigation of the problems posed by sustained full employment merits careful consideration. The steel industry has an opportunity to set the pace for business by showing how business can assume the responsibility of planning for full employment.

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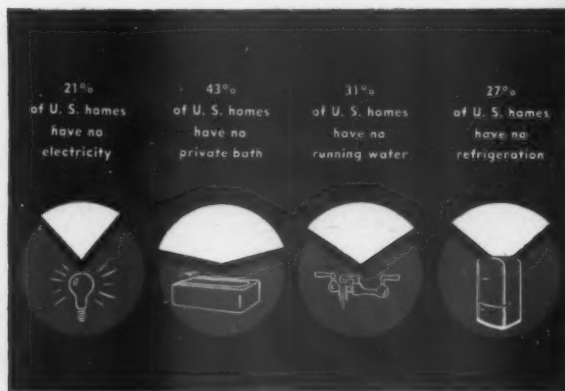
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Utilities Face Rate Slashes

Tax savings boost earnings for first half of 1946, but outlook for full year is darkened by growing demands for lower charges. State commissions are likely to order widespread cuts.

Labor trouble and the international situation are Wall Street's handiest explanation of the recent stock market tumble, but one of the big contributing factors certainly was the prospect of heavy-handed government control policies for various sorts of business. This was particularly important in the utilities section of the market, where many stocks took a worse-than-average drubbing in the early stages of the liquidation.

One of the main reasons for the sharp postwar price gains scored by utilities stocks before the market broke (BW—Nov. 24 '45, p62) was the belief of many investors and traders that the industry would prove one of the biggest beneficiaries when the excess-profits tax levy was dropped at the 1945 year-end.

• **Dark Clouds Appear**—As far as the first half of 1946 was concerned, this

belief proved entirely correct (BW—Aug. 24 '46, p93). Net income of the utility industry in that period rose sharply to around \$350,000,000 compared with \$268,000,000 of profits reported in the initial six months of 1945. And over \$60,000,000 of this gain, moreover, resulted from the drop noticeable in the utilities' 1946 federal income tax bill.

From here on, however, that bright picture may darken. As many had earlier surmised (BW—Dec. 8 '45, p74), there is a question now how much of these tax savings the industry will be able to retain. Already an increasing number of state regulatory bodies have such "extra profits" in mind as they examine rate levels and consider possible rate cuts to consumers.

• **Rate Cuts Coming**—Particularly alert has been the Kentucky State Public Service Commission. When the excess-



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For sustained production, couple these work-saving slings with smooth-running *Preformed Yellow Strand* on cranes. Both tools expedite schedules, lower costs. Remember the high-visibility *Yellow Strand* that certifies their origin.

Broderick & Bascom Rope Co., St. Louis

Branches: New York, Chicago, Houston, Portland, Seattle. Factories: St. Louis, Seattle, Peoria

**YELLOW
STRAND**



PREFORMED WIRE ROPE • BRAIDED SAFETY SLINGS



ON THE ALKALI SIDE

New board chairman of Mathieson Alkali Works is Abijah U. Fox (above), recently back from Germany where he served as deputy director in the U. S. Military Government's finance division. Formerly with Swann, Culbertson & Fritz, investments, Fox joined the U. S. Treasury in 1941, served as deputy director of its Foreign Funds Control, later as head of the Office of Surplus Property. Essentially an inorganic chemical firm, Mathieson has a growing interest in the organic field, as evidenced by the production of polydichlorostyrene, a high-temperature-resistant thermoplastic, in a Niagara Falls pilot plant.

profits levy was repealed by Congress last fall the commission immediately directed the 16 companies under its jurisdiction to show cause why they should not be forced to pass on the subsequent saving to their customers. Results were fast. Last spring Louisville Gas & Electric Co. offered to make a \$513,000 annual rate cut, Kentucky Utilities Co. a \$250,000, and Kentucky & West Virginia Power \$355,000.

Even a casual examination of recent utility news shows that many additional reductions have been ordered, or "volunteered."

New York's Consolidated Edison organization, the biggest operating unit in the business, a short time ago filed for state public service commission approval a suggested rate cut which, it estimates, will save its customers some \$7,300,000 annually.

• **Slash in New Orleans**—In Louisiana, electricity consumers not long ago were



Sunday weather for a Blue Monday

How would you like to go to work or go shopping or eat out — on a blue Monday after a swell week-end — and feel like hitting the ball a mile?

The right kind of air conditioning — Worthington Air Conditioning — will help you to feel like that. Air that's as fresh as on a fairway, as clean as over water — cool — never clammy — that makes you forget it's one day down and five to go.

If you run a business, your employees, customers and visitors will want to feel that way, too, so you'd better see a Worthington Air Conditioning distrib-

utor. You'll benefit from a 50-year experience in manufacturing air conditioning and refrigeration equipment.

Making more of the vital "innards": compressors, engines, turbines, condensers, pumps, valves, fittings — Worthington is better able to give you *integrated* air conditioning. Unit conditioner or completely-engineered system, *there's more worth in Worthington.*

Worthington Pump and Machinery Corporation, Air Conditioning and Refrigeration Division, Harrison, N. J. Specialists in air conditioning and refrigeration machinery for more than 50 years.

AE-1

WORTHINGTON

Air Conditioning

Susy Goose
toys*



made with
KEYSTONE WIRE

The SUSY GOOSE Line . . .
"Toys that Mold Character"



The Kiddie Brush & Toy Company has long been associated with the finest in children's toys. A unique factor incorporated in these toys is the education-through-play feature, which duplicates "grown-up" household appliances.

Sturdy . . . well built . . . they withstand the hard usage expected from "mother's little helper."

The wire handles, wheel pins and other points required to withstand strain are all made of Keystone wire.

No matter what the specifications, Keystone wire can normally supply it.

*Kiddie Brush & Toy Co.,
Jonesville, Michigan



SPECIAL ANALYSIS WIRE
for all industrial purposes

KEYSTONE STEEL & WIRE CO., Peoria 7, Ill.

notified that their state regulatory authorities had ordered Louisiana Power & Light Co. to put through "the largest electric rate reduction in the history of the commission." This will cut that company's annual income some \$700,000, and five other utilities in the same state have been forced to reduce their rates more than \$500,000 a year.

New Orleans has fared even better. It has been announced that the city's utilities commission and the mayor have the consent of New Orleans Public Service, Inc., to an annual reduction in electric charges of \$1,000,000.

How far this trend will extend is anybody's guess. However, Wisconsin's utility commission, for another, has been working to effect rate cuts in its area, and undoubtedly the movement will gradually spread nationwide.

• **Michigan Ruling**—The utilities scored one victory two weeks ago when the Michigan Supreme Court called the state Public Service Commission off-side for attempting to force retroactive rate cuts designed to eliminate excess-profits tax net income (BW—Sep. 21 '46, p. 36). From the utilities' standpoint the trouble is that the court confined itself to prohibiting retroactive cuts after the year is closed and the operating results in. It did not say anything to prevent the commission from hammering down present and future rates to get approximately the same result.



SUPERSALESMAN

The man who had his hands deeper into the pockets of the American public than any other man in history was given a medal last week. Ted R. (for Theodore Roosevelt) Gamble (right), who in his position as national director of the U.S. Treasury's War Finance Division supervised the sale of over \$50,000,000,000 in war bonds, accepted the country's thanks and the Medal for Merit from Treasury Secretary John W. Snyder.



"Better trains follow better locomotives"

HIS COFFEE REMAINED CALM

It was almost as though the station itself were quietly gliding away from the train. The cup of coffee before him remained serenely unruffled. Amazingly smooth, quiet starts and velvety stops are just some of the many new delights and comforts you get when riding behind a General Motors Diesel locomotive.

Fact is, the entire new era of super-smooth travel came in the wake of General Motors Diesels — they ushered in the modern streamlined idea — they inspired the luxurious, inviting new coaches.

They brought even more. Faster schedules became possible — turning transcontinental trips into one of the pleasures of travel — making

delightful de luxe coach runs of what had been overnight trips. They began to set almost unbelievable "On-time" records — today meeting schedules 97% of the time.

Also, in the swift movement of heavy freight, as well as in passenger service, these new-day locomotives have established remarkably low operating and maintenance cost records together with a new conception of the movement of tonnage.

From these economies can come the capital for further modernization of the roads, thus broadening the concepts of transportation and returning benefits to those who use, operate or invest in America's railroads.



ELECTRO-MOTIVE DIVISION

GENERAL MOTORS

LA GRANGE, ILL.



—save his skin and your product with
Sylphon temperature regulators

● The digit is a sensitive device. It can tell hot from cold easily and quickly. But that isn't enough for foods, textiles, chemicals which must sell in a highly competitive market.

The processing of today's products demands controls so accurate that one batch or one piece will be exactly like another. That's the way reputations for quality are built and maintained. That's the way consumer demand is created

and preserved . . . even in a seller's market.

Fulton Sylphon has developed a line of dependable, self-powered temperature regulators to help you take process control out of the guessing stage. Skillfully designed and constructed for long, trouble-free service, they cost you little, repay you generously.

For complete information, write today on your business letterhead for Bulletin No. SW-20.



Temperature Regulator No. 923-Q, typical of the Fulton Sylphon line, was specially developed for controlling process temperature. Also available with fin type bulb for controlling temperature of air and gases. Crank permits quick, easy adjustment of settings.



FULTON SYLPHON

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Canadian Representatives, Darling Brothers, Montreal

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BUSIN

Pool for Pensions

Pennsylvania Co.'s plan is designed for small concerns that find individual retirement programs uneconomical.

The mushroom growth of pension plans and retirement programs in the last few years has given many comparatively small companies something new to worry about. As a general proposition, pension plans are easiest to install in large companies that can spread the burden over a broad base, but this argument is scant comfort for the employees of the small company. The more common pension plans become, the greater is the pressure on small and medium-sized firms to fall in line.

• **Investment Pool**—Insurance companies recently have been trying various ways of tailoring retirement programs to the needs of small employers. The latest venture in this direction is a plan now being launched by the Pennsylvania Co. for Insurances on Lives & Granting Annuities. It is designed to appeal particularly to small banks and financial institutions that are not large enough to set up individual programs for their employees on the most economical terms.

The mainspring of the Pennsylvania Co. plan is a common investment pool—known as the Penco Pension Trust—to which participating companies will contribute. Each institution that joins will submit its payroll statistics and employee histories on a special form. Pennsylvania Co. actuaries will then figure out the costs and scale the contribution rate for the company accordingly.

• **Banks Pick Committee**—The Pennsylvania Co., acting as custodian and trustee, will supervise investment of the fund. All sales and purchases of securities will be reviewed by a three-man pension committee elected by the participating banks. Investments will be limited to bonds, equipment or other lease trust certificates, and guaranteed and preferred stocks. Computations have been based on the assumption of a 2% rate of income.

The Penco plan is designed to cover everyone from president to janitor, with those earning above \$3,000 a year getting a higher ratio of benefits to offset the fact that Social Security coverage stops at that level. For example, a 45-year-old official getting \$5,000 a year with 15 years' service at the time the plan starts will get \$2,187.50 annually—about 44% of his pay—if his earnings remain constant until his retirement at 65. A man with a salary of \$2,500 would receive an annual pension of

CAN YOU GUESS THE ANSWERS?



1. WHAT'S BECOME OF THE "OLD OAKEN BUCKET"?

It's still going strong. Thousands of families still draw water from wells and cisterns equipped with buckets. Last year Acco's American Chain Division made over 5,000,000 feet of well chain. This Division manufactures welded and weldless chain for every purpose.

2. CAN YOU LIFT 20,000 LBS. WITH ONE HAND?

Yes—by using a hoist. With this time-and-muscle-saving machinery you can easily lift and move objects that weigh a few hundred pounds—or many thousand. Hoist and crane power have replaced muscle power in many industries. Acco's Wright Division makes a diversified line of hoists, cranes and trolleys.



3. HOW DOES CORN HELP MAKE STEEL CASTINGS?



Starch and gluten from corn are mixed with sand to make molds. Then liquid steel is poured into molds to form castings which are used in thousands of durable products—including agricultural machinery which helps produce more corn. Acco's Reading Steel Casting Division controls every step in the process to insure high quality castings.

These are only a few of the primary products made by the 17 divisions of ACCO: Chain • Wire Rope • Aircraft Cable • Fence • Welding Wire • Cutting Machines • Castings • Wire • Springs • Lawn Mowers • Bolts & Nuts • Hardness Testers • Hoists & Cranes • Valves • Pressure Gages • Automotive Service Equipment

ACCO



AMERICAN CHAIN & CABLE

How would YOU make a conveyor belt...

with rubber's resilience,
steel's strength?



One serious limitation to the lift and length of a conveyor has always been the limited strength of the belt. Gaining strength by increasing thickness meant large and impractical pulleys. But at last there is an answer.

Today, conveyor belts are being made six times as long, for six times the lift and haulage. Small cords of Roebling wire rope, known as Steelply, are embedded in the belts, actually combining the resilience of rubber with the strength of steel.

Here is an instance where Roebling engineers worked with the engineers of leading rubber companies to produce a new and far better product. They will welcome working with your engineering department on matters involving the use of any Roebling product.

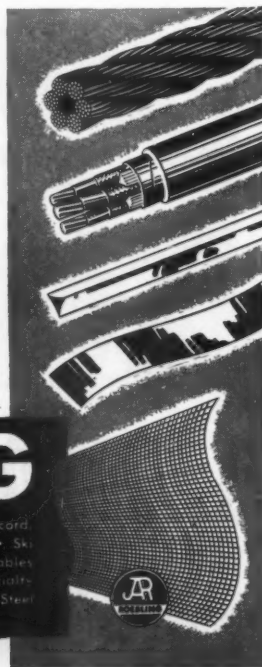
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PACEMAKER IN WIRE PRODUCTS



INTRAMURAL SHIFT

Johns-Manville Corp.'s top executives made news last week as Lewis H. Brown (above), president since 1929, became chairman of the board and chief executive officer of the company, while R. W. Lea (below) took over Brown's presidential post. Lea, who had been vice-president for finance since 1939, was appointed executive vice-president last January. The shift was part of an over-all reorganization to step up the company's \$50,000,000 improvement and expansion program.



\$781.25, or roughly around 31% of his salary.

• **Contributions Amortized**—The formula for computing benefits under the master plan takes account of service both before and after the employee becomes eligible. On past service, it allows $\frac{1}{3}\%$ on the first \$3,000 of salary each year, plus $1\frac{1}{4}\%$ on everything over \$3,000 for each year after reaching the age of 30 or completing two years of

Investors' Quiz

FOR BUSINESS WEEK READERS

We'll tell you in advance the answer to every question below is "NO." But we believe you will find interest and benefit in getting these facts. They are published as a public service to correct some mistaken ideas harmful to an understanding of the functioning of our securities markets.

Do you think the New York Stock Exchange buys and sells securities?

A recent poll of public opinion which we conducted showed that a surprisingly large minority does have this mistaken idea. *The fact is*—while some individual members of this Exchange buy and sell securities for their own account the New York Stock Exchange itself *does not buy or sell anything*. It is merely a public market place... where buying and selling orders from all over the country meet.

Do you think the New York Stock Exchange makes a profit if you lose on a transaction?

This Exchange neither *makes* money if you lose on a transaction, nor *loses* money if you profit on a transaction! This institution is nothing more nor less than an *association* of member brokers. It derives its revenues from various fees and service charges, paid mainly by its members and by the companies whose securities it lists.

Do you think registration of a new security with the Securities and Exchange Commission automatically assures its value?

This also is a mistaken idea. Under the law requiring registration of new

securities, the Securities and Exchange Commission does not have authority, nor does it attempt in any way, to appraise the worth of securities registered with it. The Commission's only power with respect to registration is to see to it that required information about the issuer and the security is publicly disclosed and that a prospectus is furnished which makes that information available to the investor.

Do you think that only new securities are registered with the Securities and Exchange Commission?

Not so. Many securities already outstanding are also registered. For example, all securities listed on the New York Stock Exchange are required to be registered with the Securities and Exchange Commission. The application for registration, which must be kept up to date by the filing of periodic reports, contains detailed information about the issuer of the security and its business. As a general rule, no prospectus is required in a stock exchange transaction, but the reports are available at the New York Stock Exchange.

As in the case of new securities, the Commission's only power with respect to registration is to see that

the required information about the issuer has been publicly disclosed.

Do you think either the Securities and Exchange Commission or the New York Stock Exchange establishes or controls prices at which securities are sold on the Exchange?

Neither the Commission nor the New York Stock Exchange sets prices or determines values. Only buyers and sellers, acting in the light of their own needs, knowledge and opinion, decide the price of securities traded on the Exchange.

The New York Stock Exchange and the Securities and Exchange Commission see that facts are made available... it is the responsibility of the investing public to pass judgment as to values on the basis of these facts.

NEW YORK
STOCK EXCHANGE



How Investment Supervision Can Help You Today

Recent events re-emphasize the lone investor's difficulties in maintaining an objective viewpoint . . . in divorcing wishful thinking from realistic judgment and acting forthrightly on the problems and opportunities created by market recessions.

While no investor can ever eliminate all hazards and vexations from the investment of capital, Moody's is today assisting many individual and institutional investors with what we believe to be the most helpful investment service offered to men of means . . .

Moody's Personal Management Service

This service provides practical help in keeping your funds gainfully employed with minimum risk.

When you subscribe, all the resources of MOODY'S Staff focus upon developing a sound policy within your objectives . . . striving constantly to put your portfolio in balance, to increase its soundness, and eliminate its weaknesses.

Whenever MOODY'S Staff unearths anything which threatens

the value of any security you own, you are immediately advised of the action you should take. The initiative is always ours, the decision always yours. Fees are determined by the time devoted to your affairs, not by the size of the funds involved.

We shall be pleased to discuss MOODY'S PERSONAL MANAGEMENT SERVICE with you in person or to send a descriptive memorandum. Please ask for Bulletin 25 W.

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continuous service, whichever comes later. For service after qualifying under the plan, it allows 1% on the first \$3,000 a year and 2% on everything over that.

Rates will be scaled so that participating companies will not have to make big initial payments to cover the benefits for past services. This element in the contributions will be amortized over the future years of employment so that payments will be as nearly level as possible. Reserves accumulated for persons not surviving to retirement age or leaving employment with a participant before qualifying for a pension will be credited against future contributions by the employer.

The Pennsylvania Co. says that, on this basis, the plan will meet the requirements of the Internal Revenue Code and qualify as a trust exempt from federal income taxes. It has the approval of the Pennsylvania Banking Dept.

• **Trust Officer's Plan**—Penco is the brain child of John W. Clegg, Jr., Pennsylvania Co. trust officer. It is based on much the same principles that Pennsylvania Co. relied on in 1940 when it introduced its Discretionary Common Trust Fund, which is designed to provide moderate-sized trust accounts with a broader diversification of investments than most of them ordinarily could attain. The greater scope of the holdings tends to cushion the small accounts against heavy losses on individual investments.

HEINZ OFFERS STOCK

H. J. Heinz Co., famous for its 57 varieties of food, proposes to add two new varieties of stock to the New York Stock Exchange list. For the first time in its 77-year history, the company is planning a public financing.

Shortly after a stockholders' meeting, Oct. 7, Heinz hopes to split its common four-for-one and offer, through a syndicate headed by Morgan Stanley & Co., a block of 200,000 shares plus 100,000 shares of cumulative preferred. The new common will have a par value of \$25, and a total issue of 2,000,000 shares will be authorized. Some 200,000 shares of the new preferred, par \$100, will be authorized, but only half that much will be issued at present.

The reasons for the proposed financing are typical of the times. President H. J. Heinz, II, announced from Pittsburgh, "The government tax structure has made it increasingly difficult to retain a sufficiently large part of earnings to finance entirely our expansion of factory facilities, warehouse space, and inventories." Approximately \$5,150,000 of the proceeds will be used to retire outstanding 4% preferred.

These 3 ... together



THREE corporations, each serving a separate field of business ... engineering ... business operation ... and investment banking ... are all under the general direction of the parent company, Stone & Webster, Incorporated.

1. **STONE & WEBSTER ENGINEERING CORPORATION** furnishes complete design and construction services for power, process and industrial projects. It also constructs from plans developed by others; makes engineering reports, business examinations and appraisals ... and undertakes consulting engineering work in the industrial and utility fields.

2. **STONE & WEBSTER SERVICE CORPORATION** is that part of the organization which supplies supervisory services for the operation and development of public utilities, transportation companies and industries.

3. **STONE & WEBSTER SECURITIES CORPORATION**, formerly Stone & Webster and Blodget, Incorporated, is an investment banking organization. It furnishes comprehensive financial services to issuers of securities and investors; underwriting, and distributing at wholesale and retail, corporate, government and municipal bonds, as well as preferred and common stocks.

The business of the parent company also includes investments in enterprises to which it can constructively contribute capital...substantial enterprises ready to take advantage of present opportunities or not yet ready for public financing.

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BEST BASIS FOR INDUSTRY PROCEDURES

SPECIFICATION that calls for excellent performance

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CERTIFICATION (if desired) to evidence test-proven compliance with specification

SPECIFICATION

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TESTING LABORATORIES INC.**
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OIL WAS LEAKING AND CAUGHT FIRE. I THREW WATER ON IT, BUT THE FIRE DIDN'T GO OUT—IT SPREAD. NOW OUR HOME IS A PILE OF ASHES.

YOU COULD HAVE SAVED YOUR HOME. A PYRENE FIRE EXTINGUISHER SMOTHERS OIL FIRES BEFORE THEY SPREAD.

Some regions have a law requiring fire extinguishers for oil hazards—safety for you. Protect your home with Pyrene. Buy one at your home and auto supply dealer today.

"BE IT EVER SO HUMBLE"
free booklet of household hints sent on request

Pyrene

Remember the dates:
Fire Prevention Week
October 6-12

Pyrene Manufacturing Company
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Affiliated with C-O-Two Fire Equipment Co.

LABOR

I.T.U. Showdown in Chicago

Franklin Assn. employs new strategy in negotiating with union on unprecedented wage demands, turning publicity spotlight on situation likely to affect entire industry.

The Franklin Assn., acting for employers in Chicago's vast commercial printing industry, began deadly serious contract negotiations this week with the International Typographical Union (A.F.L.). The outcome of that bargaining is almost certain to determine a number of highly important things.

In the order of their probable occurrence they are: (1) whether Chicago printers face another costly strike which is almost certain to outlast 1945's three-week walkout; (2) whether, as some of the industry is dolefully predicting, Chicago is washed up as a major publishing center; (3) whether the new national standards for I.T.U. non-newspaper contracts, certain to be established in these negotiations, will make printing costs so high that demand will be cut seriously enough to depress the whole printing business; and (4) whether new high watermarks for labor will be set that will be taken as practi-

cal objectives by unions in many other, dissimilar jurisdictions.

• **Hint of Compromise**—Pointing at an Oct. 4 deadline, the I.T.U. has served notice that its Chicago members will be called out of all job shops unless employers agree to a "reasonable" settlement. This indication that some compromise is possible was I.T.U.'s first hint that it would close for less than its original phenomenal demands (BW—Aug. 10 '46, p96). The Franklin Assn.'s first counteroffer of an 11¢-an-hour increase—which would bring the scale to \$1.92½ an hour as against \$3.02 demanded by the union—was flatly rejected. And as a result, the association has announced that it is prepared to wage a determined fight.

That battle will be generated by C. L. MacKinnon, familiar figure in mid-western labor relations circles, who was hired away from Sherwin-Williams to be general manager of the Franklin



REORIENTATION BY STARR IN THE EAST

Women representatives of newly elected labor unions in Japan receive special instruction in American-style trade unionism from Mark Starr, national educational director of A.F.L.'s International Ladies Garment Workers Union. Borrowed by the War Dept. for a special mission to Japan, Starr, acting as labor consultant to general headquarters, is mapping education programs and organizing classes among Japan's rejuvenated unions (BW—Sep. 7 '46, p22).

Know the difference between

CONTRACT MANUFACTURING

and Sub-Contracting ?

★ Some people think they're the same thing.

But our business is contract manufacturing...and here's our definition.

Contract manufacturing is high-production, straight-line manufacturing, with a production center for each major product . . . and always with an efficiency that drives costs down.

Contract manufacturing is management, engineering and production talent so flexible that it quickly takes over your problems and even beats the record you might have set in

your own plant.

Contract manufacturing is use of the most efficient tools available by a large, skilled veteran labor force that recognizes its responsibility for meeting production schedules.

That's the way Hupp practices contract manufacturing. And many of America's leading industrial firms have found it good.

Hupp can be a manufacturer's manufacturer or a distributor's manufacturer . . . providing completely integrated service from blue-

print to the packaged product, or stopping at any point in between, as you wish.

CALL HUPP—AN EXPERIENCED CONTRACT MANUFACTURER.



ONE IN A SERIES OF ADVERTISEMENTS PRESENTING THE HUPP PLAN FOR INDUSTRIAL STABILITY



HERE'S \$50,000 OR MORE FOR YOU!

If you need cash, \$50,000 or more for expansion or to take advantage of business opportunities, let us tell you how your inventory of raw materials or finished products can be used to get it.

Like thousands of others, you can use Lawrence System Field Warehousing to obtain up to two or three times the banking credit otherwise available to you.

THIS BOOKLET IS YOURS FOR THE ASKING

For those who have never used Lawrence System Field Warehousing we have prepared a special booklet. It tells how you can get a check for \$50,000 or any amount needed—if you have the inventory of raw materials or finished products.

Because these additional dollars can be yours at low cost, and without impairment of ownership or control of your business, it is simply "good business" to send for your copy of this booklet, and to investigate Lawrence System Field Warehousing.

Write any of the offices listed below for your copy of "Field Warehousing on Your Premises."



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Carl Dunnagan (left), president of the Union Employers Section of the Printing Industry of America, Inc., and Woodruff Randolph, A.F.L. typographical union head, had a disarming appearance of harmony when photographed together at Miami Beach. Actually unions and employers in the industry are locked in bitter struggle as a result of labor demands in major printing centers.

Assn. and handle its crucial 1946 negotiations.

• **Publicity Turned On**—MacKinnon's strategy is a radical departure from previous F. A. negotiating policy. In the past, not even association members were kept informed on progress of discussions with the union. This time—to the I.T.U.'s resentment—negotiations are being conducted in a goldfish bowl of publicity. Employers in the F.A. and their customers, including many national magazines published wholly or in part in Chicago, are being prepared for possible strike action.

Customers are being warned that unless union demands are resisted through a united stand, and with a possible interruption of publishing schedules, publishers may be faced with printing bills 85% to 110% above present rates. And since the Chicago fight is the key to a national campaign, F. A. warns that printing elsewhere would be ultimately affected.

• **I.T.U. Strategy**—Currently, contracts in Washington, St. Louis, Cincinnati, and Toledo, are also being negotiated

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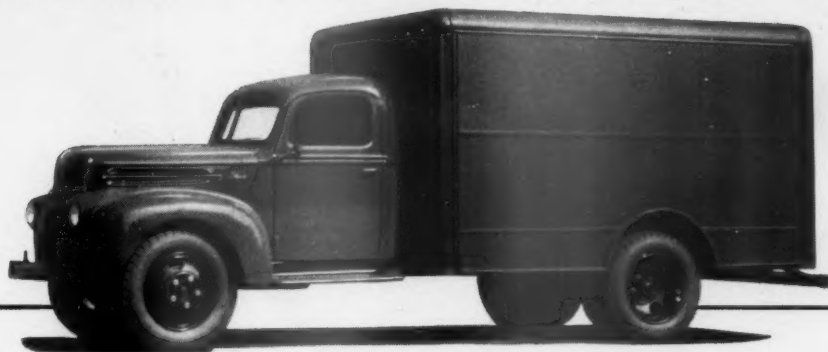
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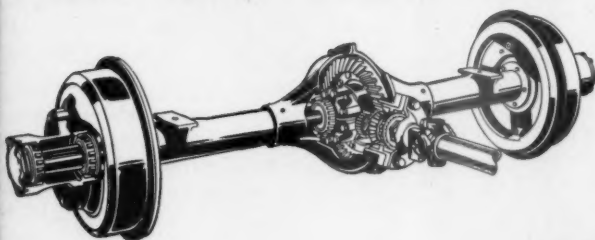
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"FORD TRUCKS LAST LONGER!"

**One big reason —
FORD AXLES STAND UP!**



Ford Truck axle shafts carry no weight load, because ALL Ford Trucks have $\frac{3}{4}$ -floating or full-floating axles. All weight stresses are carried on the axle housing—none on the shafts—minimizing shaft breakage. Driving pinion is straddle-mounted on 3 large roller bearings, maintaining positive mesh with ring gear—no destructive springing away under stress. Differentials have 4 sturdy pinions, even in light duty chassis, spreading the load and strain.



ONLY in a Ford Truck will you find all these long-life features: your choice of two great truck engines, the 100-H.P. V-8 or 90-H.P. Six—triple-life Silvaloy V-8 rod bearings—Flightlight aluminum alloy, 4-ring pistons—efficient air- and oil-filtering—full pressure lubrication—heavy channel section frames, doubled between springs in heavy duty models—semi-centrifugal clutch—big hydraulic brakes, with non-warping, score-resistant cast drum faces for maxi-

mum life. More than 50 such long-life features contribute to Ford Truck endurance . . . and that endurance is proved by the fact that 7 out of 11 of all Ford Trucks built since 1928 are still in use. See your Ford Dealer!

FORD TRUCKS

MORE FORD TRUCKS IN USE TODAY THAN ANY OTHER MAKE

At Higher temperatures



You Can Still Give Electrical Equipment The Moisture And Corrosion Protection Of Lumarith Cellulose Acetate Film Insulation.

In combination with asbestos, glass braid, mica or silicones, Lumarith film insulation can be counted on for efficient, long-life operation at temperatures considerably above its rated softening point. That is because Lumarith is a thermoplastic, with chemical breakdown point far higher than this softening point. Lumarith cellulose acetate film insulation will not promote corrosion—even when in contact with current-carrying copper wire and moisture. It provides complete corrosion protection for even the most delicate equipment.

Investigate the electrical possibilities of all Lumarith plastic materials: molding materials, sheets, rods, tubes, films. Send for booklet entitled, "Celanese Synthetics for the Electrical Industry". Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y., producers of LUMARITH, FORTICEL[†], CELCON[‡], CELLULOID*, VIMLITE*.

• • •

ELECTRIC RANGE WIRE (Size 16) . . . Primary insulation, Lumarith Cellulose Acetate, secondary insulation, Asbestos. This Lumarith insulated wire is depended upon for efficient operation at temperatures considerably higher than those encountered in average electrical installations.

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XUM

with I.T.U. Within the next several months commercial printers in Cleveland, Pittsburgh, Philadelphia, Memphis, New York City, Albany, Buffalo, and Detroit are due for contract reopenings. I.T.U. strategy, mapped in a re-

cent Miami Beach convention, is pointed toward "defensive action" in strikes or lockouts if negotiations on "substantially improved" contracts should deadlock in any of these centers. The Franklin Assn., bearing the brunt

THE LABOR ANGLE

Impressive

The reasons for crediting the story that Philip Murray will resign the presidency of the C.I.O. when that organization meets in convention in November (BW—Sep. 21'46, p7) are impressive.

He is past 60. He is tired and not in the best of health. He has just lost, in the death of Sidney Hillman, an invaluable aide whose passing throws new burdens on his shoulders. He is the focus of strong pressures from the nearly irreconcilable right-wing and left-wing groups within the C.I.O., and he must keep them reconciled. He can leave the C.I.O. job and retain his presidency of the steelworkers union, thus keeping a highly important position in the labor movement.

It is because of these considerations that every C.I.O. office in the country is agitated over the question: Who can replace Murray?

No other man in the C.I.O. hierarchy comes close to having Murray's stature or prestige. No other man who can be seriously considered for the office has preserved anywhere near Murray's measure of impartiality in the C.I.O.'s basic and bitter left-wing, right-wing fight. In every single C.I.O. union, except the steel union which Murray built and the men's clothing union which Hillman built, the left-right battle is being constantly fought and every single president of a C.I.O. affiliate has had to lean, at least, to one side or the other. Thus the elevation of any one of them to the C.I.O. presidency would mean an organic split in the organization.

Choices

Ruling out the ranking officers of the affiliated international unions as serious possibilities for the C.I.O. presidency does not leave many candidates who have the standing necessary to handle the reins Murray may put down. Of those who remain, Allan Haywood and Clinton Golden are, perhaps, the most important.

Haywood, as director of organiza-

tion for the C.I.O., has had to stay largely aloof from internal ructions. He is an old miners union associate of Murray and completely in his confidence. Fond of creature comforts and with a streak of puckishness in his makeup, he has never exhibited a great ambition to rise beyond the comfortable berth he now occupies. As president of the C.I.O. he would be overshadowed by the larger, stronger personalities found in the leadership of some of the C.I.O.'s international unions.

Golden, recently retired as vice-president of Murray's steelworkers union and at present on a roving assignment for the C.I.O. on the high government level, is taken very seriously by his associates. But, at 58, recurring illnesses have forced him to do less and less work and, because of this, he left his position in the steel union. He would not, on his own initiative, make a bid for the Murray job.

Hand-Picked

Nor would it do anyone any good to make such a bid. John L. Lewis chose Murray to succeed the founder as head of the C.I.O. and, similarly, Murray, and Murray alone, will choose his successor.

Despite the fact that Murray was Lewis-trained and Lewis-made, he established policies for the C.I.O. which were so antithetical to his tutor that the coal miners were pulled out of the organization. And it can be the same again. Whenever Murray picks a successor and whoever he may be, Murray will have no assurance that his heir will not lead the C.I.O. down paths which the head of the steelworkers union will refuse to follow.

Unpredictable

In the Lewis-Murray tradition, the next president of the C.I.O. will immediately become its chief policymaker, planner, politician, and strategist. It is not possible to predict where the C.I.O. is going until it is known who that man will be.

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4. Self contained—a heating plant without additional equipment
5. Suspended—saves floor space
6. For commercial and industrial buildings



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Every day is some man's birthday! Each month there are weddings—anniversaries, and other gift-events. Whatever and whenever the occasion, if the man smokes, he'll want a Kirssten, the cooler, sweeter-smoking pipe. The Kirssten is a clean pipe and is easy to keep clean . . . gun-barrel clean!

Suggestion: Better buy those Christmas Kirsstens early!

Kirssten
"RADIATOR" PIPE



Four Sizes
\$6 to \$12.50

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What happens After the factory whistle blows?

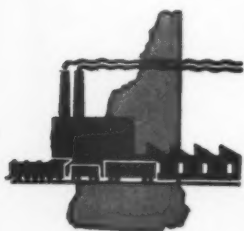


Leisure hours influence production, too!

WHEN time off means refreshing rest and recreation, instead of just a "break" between periods of work, increased efficiency invariably results. This has been the experience of plants recently located in New Hampshire, where some of the world's most beautiful recreation country affords employees and their families unlimited opportunities for healthful pleasure dur-

ing the hours of leisure.

Along with these conditions which promote production and foster employee goodwill, are low power rates, proximity to mass markets and a highway system of year-round excellence . . . all combining to make New Hampshire, which enjoys the greatest stability of income in the nation, an ideal place for small and medium-sized industry.



Your copy of an informative booklet, "A Plant in New Hampshire," will be sent immediately. Address: Edward Ellingwood, Industrial Director, 742 State Office Building, Concord, N. H.



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NEW HAMPSHIRE

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State Planning and Development Commission, Concord, New Hampshire

of the first attack of the late-1946 series by I.T.U., emphasized to employer-members that it intends no union-smashing campaign. It wants only to stem the union's "inflationary demands," and to win assurances of (1) more satisfactory grievance procedures, to give more stable and orderly relations in the industry, and (2) some relief from the present labor shortage by relaxation of strict union apprenticeship rules. Granted these, the F. A. said its members would probably make further concessions on the wage issue—but not grant the full union demand for a \$1.20½-per-hour increase. Nor, said F. A., was it prepared to give severance pay or increases in overtime to double and even triple the straight-time rate.

• **Vacations Demanded**—The I.T.U. in opening negotiations made clear that its demands were flexible. It wanted, for instance, to wipe out the differential between rates paid commercial operators and those employed by newspapers (who now get \$1.81½ and \$2.08½ an hour respectively). It also wants the same three-week paid vacation for commercial and newspaper printers. The union implied that a proposal for increased overtime pay was a bargaining demand—subject to compromising—but that triple pay for holiday work would be sought as an out-and-out penalty on employers because the union does not want members to work on holidays.

The union agrees that there should be some form of relief in the present shortage of printers, but contends that the apprenticeship period already has been shortened, and work permits are being issued to nonmembers of the I.T.U. where they are actually needed. Further measures which might lead to a future surplus of printers are opposed.

• **Union Pressure**—The Chicago local, while definitely talking much softer, took steps to bring pressure on F. A. members. A union order banned all overtime in Chicago job shops until the contract is settled. F. A. also reported—and the union promptly denied—that a slowdown has been instituted in all plants.

But, while actual offer-and-demand positions of F. A. and union showed signs of being brought closer together, tension increased. Both sides are girding for what they believe to be a battle of first importance.

STEEL FABRICATORS REBEL

One hundred and fifty steel fabricators, organized as the Non-Basic Steel Coordinating Committee with headquarters in Detroit, are determined to eliminate the union-wide bargaining used by C.I.O.'s United Steelworkers.

The C.I.O. steelworkers arrive at a contract with some large factor in the



1. *Everybody comes to Statler. Once it was Mr. A. A. Aladdin & genie. Somehow Statler service seemed to confuse the genie. Every time he tried to do something for his boss one of Statler's efficient staff was ahead of him. When you're a guest at Statler you really are a guest.*



2. The Statler bath amazed them both . . . all that steamy hot water, the extra-lathery soap, and the snowy-white towels. When the genie drew a glass of crystal clear ice water right out of a tap he almost fainted. "Gosh," he said, "I've never even heard of this trick!"



3. Bedtime came, and the genie whipped up a flying carpet with a built-in sleeping bag. But Aladdin just sneered, "Look, genie, Statler's mattress has 537 built-in coil springs, and softer floating-comfort than anything you ever dreamed up, so 'magic' that moth-eaten rug out of here."



4. Next morning the genie wanted to order breakfast, but Aladdin said "NO," and ordered it from Statler room service. It arrived piping hot, there was plenty of coffee, and the eggs were just the way Aladdin liked them. The genie was furious!



5. That night, after a delicious Statler dinner, the genie tried to call up an orchestra and some entertainers, but Statler had signed them first. "I'M JINXED," cried the genie, and vanished. But Aladdin just smiled; he liked everything at the Statler. *And we think you will, too!*



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In the LEBANON Valley



From the book, "Lebanon County Through The Centuries." It's brightly written, brilliantly illustrated. Send for a free copy.

The thunder of cannon across the peaceful Lebanon countryside proclaimed the arrival at his castle of "Baron" Heinrich Wilhelm Stiegel, the famous colonial manufacturer of glassware and iron products. Tradition has it that Stiegel travelled in princely fashion between his scattered estates, his regal coach drawn by four horses and escorted by outriders, a pack of baying hounds racing behind.

Stiegel was the first American to urge his countrymen to buy American products. His fine glassware and ten-plate stoves, made at Charming Forge, have become collectors' items. In the Lebanon Valley where skilled workmanship is traditional, the Lebanon Steel Foundry has scored many "firsts" in developing new methods of producing alloy and steel castings to meet your needs. Consult a Lebanon engineer.

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LEBANON ALLOY STEEL CASTINGS

basic steel industry—this year it was the U. S. Steel Corp.—then impose the wage terms of that contract on all employers who deal with the union. Some of these employers are very remote from the basic steel industry. Some don't even use steel in their products. The only thing they have in common with the big steel producers is that they deal with the same union. And in negotiations between the steel producers and the C.I.O. they are unrepresented.

Philip Murray, president of the steelworkers union, has indicated his willingness to consider the fabricating industry as distinct from the basic steel industry for the purpose of establishing terms and conditions of employment, but he is not expected to look favorably on the coordinating committee's ultimate objective: wage negotiations on an individual-plant level.

M.E.S.A. ENTERS EAST

The ambitious Mechanics Educational Society of America, independent union with strong roots in Michigan and Ohio, has spread to the East by absorption of the Interstate Metal Workers Union.

Interstate's members, who voted to merge with M.E.S.A., are largely concentrated in the Rome (N.Y.) plants of the Revere Copper & Brass Co., where they have established a record for militancy which parallels the bold moves of the M.E.S.A. in its Detroit and Cleveland bases.

I.M.W.U. has chapters also in Buffalo, Utica, and Olean, N. Y.; Conestoga, Pa.; New Bedford, Mass.; Perth Amboy, N. J.; and Baltimore. It claims about 8,500 members, or about a fifth of M.E.S.A.'s announced total of 40,000.

White-Collar Woe

New organizing drive by C.I.O., plus success of two recent strikes by office workers, warns management of trouble ahead.

Intensification by C.I.O.'s United Office & Professional Workers of organizing drives among financial, radio, publicity, technical, and scientific workers, coupled with two strikes by "white-collar" auxiliaries of mass production unions, served last week to raise new management concern over office personnel problems.

• **Significance**—The walkouts demonstrated effectively that strikes by white-collar employees affiliated with sympathetic unions of plant workers can stop production just as quickly as walkouts of the men who run machines.

U.O.P.W.'s successes in broadened efforts to get union cards signed by office and technical employees were interpreted as a warning to management against the restlessness of white-collar workers now caught in a pinch between stabilized wages and rising prices.

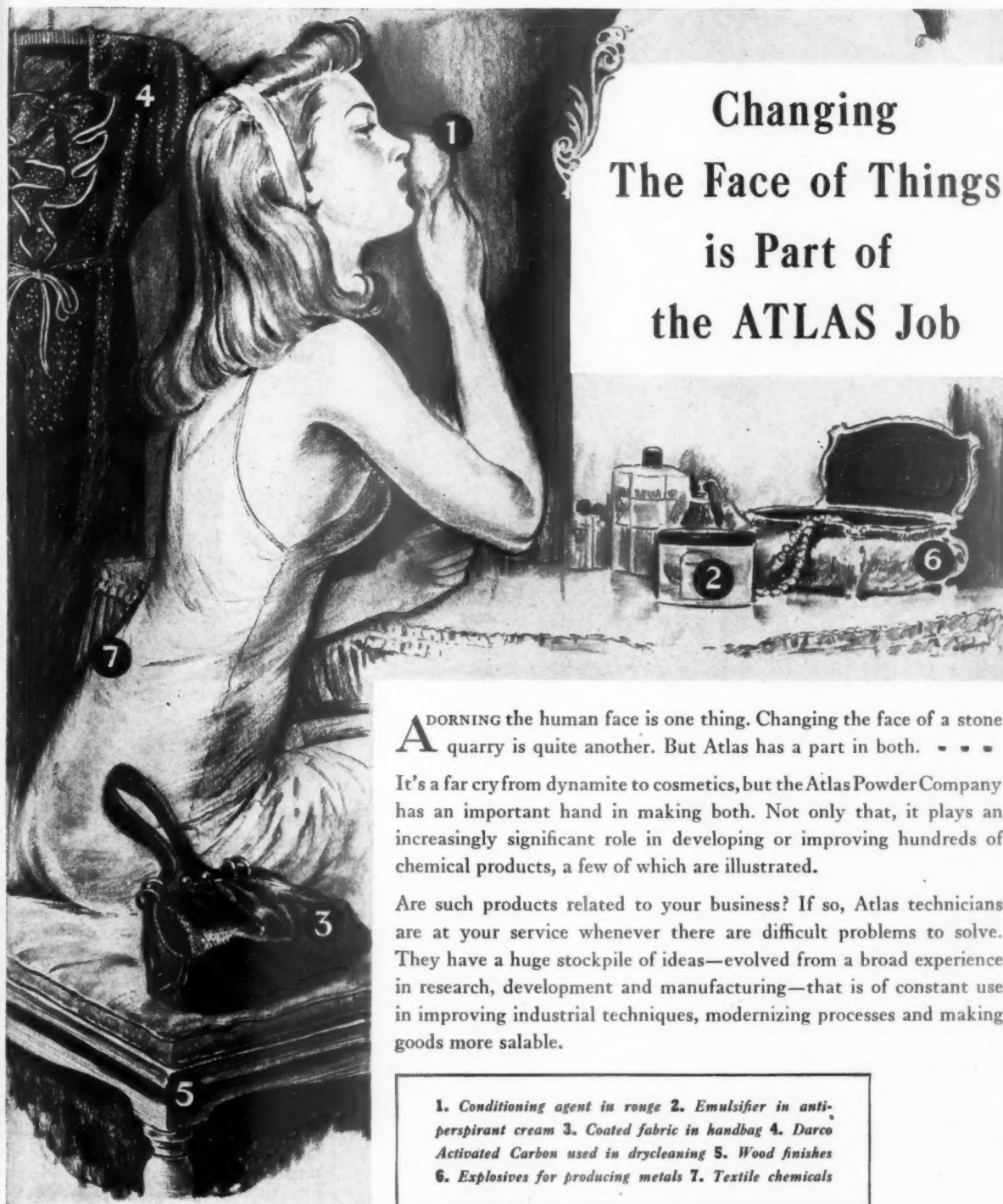
• **Strike at Gary**—Operations at Carnegie-Illinois Steel Corp.'s huge sheet and tin mill at Gary, Ind., were shut down for six days when 7,000 production workers, members of the United Steelworkers of America (C.I.O.), observed picket lines posted by a striking 400-member salaried clerical workers' local of the same union.

The strike was called when the company sought to unify two production planning departments, as part of a program to put sheet and tinplate



C.I.O. white-collar union pickets, stopping cars and buses approaching the Gary (Ind.) sheet and tin mill of Carnegie-Illinois, succeeded in closing the plant for six days when production workers backed their strike.

Changing The Face of Things is Part of the ATLAS Job



ADORNING the human face is one thing. Changing the face of a stone quarry is quite another. But Atlas has a part in both. . . .

It's a far cry from dynamite to cosmetics, but the Atlas Powder Company has an important hand in making both. Not only that, it plays an increasingly significant role in developing or improving hundreds of chemical products, a few of which are illustrated.

Are such products related to your business? If so, Atlas technicians are at your service whenever there are difficult problems to solve. They have a huge stockpile of ideas—evolved from a broad experience in research, development and manufacturing—that is of constant use in improving industrial techniques, modernizing processes and making goods more salable.

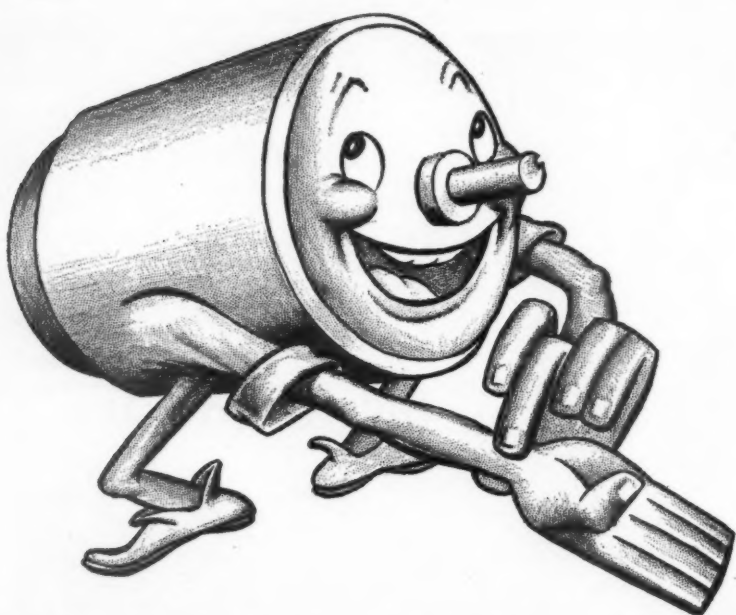
1. Conditioning agent in rouge 2. Emulsifier in anti-perspirant cream 3. Coated fabric in handbag 4. Darco Activated Carbon used in drycleaning 5. Wood finishes 6. Explosives for producing metals 7. Textile chemicals



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MOTORS THAT HAVE NO PULSE

Vibration. You've seen it in motors. *Felt it.* And, perhaps, put up with it. But there are jobs that can't have *any*. That's where R & M *vibrationless* motors fill the bill to a "T."

One reason why Thompson Surface Grinders turn out such precision work is their perfectly balanced, *super-smooth* motors. Thompson and R & M engineers saw to that. Together, they developed a built-in spindle-head motor that takes less space; ventilates perfectly in air heavily laden with coolant; requires only *one* spindle-head casting—instead of many—for the *entire* range of motor ratings and speeds.

Even big, heavy grinders would "ripple" the work if a small auxiliary motor were just *slightly* out of balance, or had an uneven air gap or minor electrical disturbances. So, the hydraulic table control and coolant pump motors—while *standard* R & M types—have refinements in shaft and rotor treatment that completely *eliminate* vibration.

Meeting unusual motor needs—with special designs or adaptations—has been a *major* R & M service to manufacturers for many years. Whatever your powering problems, R & M engineers will be glad to sit in with *your* designers, just as they did at Thompson.

You can look 'to R & M for the best in motors, fans, hoists and cranes, pumps, and compact speed-change machine drives. *Robbins & Myers, Inc., Springfield, Ohio. In Canada: Robbins & Myers Co. of Canada, Ltd., Brantford, Ontario.*

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operations under a single management. According to the company, the move would reduce the combined personnel of the two departments by 30 employees, who were offered other clerical jobs in the plant.

• **Claims and Counterclaims**—The local, however, claimed 180 members would be downgraded, with some pay cuts of as much as \$40 a month, and that transfers were made without regard to seniority and without consulting the union, as provided in its contract. In rebuttal, the company cited a contract clause barring consideration of grievances during strikes. It suggested that the union call off the walkout, file a grievance, and observe the usual settlement procedure.

Negotiations broke down on Sept. 20 when the union refused to end its strike on that basis. But the next day, after a meeting of officers of all steelworkers' unions in the Gary area, the clerical employees reconsidered their refusal. It was assumed that the other locals, with far more at stake, talked the production planners out of their walkout. The company this week received the union grievance and the issues are currently under discussion.

• **Strike at Philadelphia**—Fifty office workers, members of a local union of the Industrial Union of Marine & Shipbuilding Workers of America (C.I.O.), voted to strike against the American Engineering Co.'s two plants in Philadelphia last week in a wage dispute. The walkout kept 200 I.U.M.S.W.A. production workers from their jobs. Members of two A.F.L. unions, the moulders and the patternmakers, also refused to pass through the clerical workers' picket lines.

• **An Organizational Drive**—Meanwhile, Lewis Merrill, the president of C.I.O.'s white-collar union, the U.O.P.W., told members of his executive board in New York City that an immediate drive to lift salary scales of office and technical employees is vital to "prevent a repeat performance of white-collar workers' experiences in the last depression."

Allocation of national union funds and assignment of key personnel to the drive was announced by Merrill. Organization was reported progressing in 17 banks, as well as in the Metropolitan Life Insurance Co., Prudential Insurance Co., and John Hancock Mutual Life Insurance Co., where U.O.P.W. has won contracts.

Merrill reported that the union now represents 70,000 workers in insurance, financial, social service, film, radio, publishing, technical, and other white-collar fields.

• **Two Victories**—Recent gains included a New York State Labor Relations Board collective bargaining election victory (92-57) among guards and messengers employed by the Bankers Trust

"AT YOUR AGE, SON...
Why Can't You
COUNT?"



Here's a question that may be fairly put by many manufacturers to products that have been out in the field, pulling their freight, for some time.

It's a small thing, but a BIG thing, as so many of these manufacturers have found.

For when a product, a machine, or a process can keep count of its own functioning, performance, or production . . . then it gives its user a much tighter rein on all lines of production. Because, you see, when a Veeder-Root Counting Device is built into a product, then that counter gives an accurate, up-to-the-minute record of that product's performance . . . shows at all times how the product stands in relation to departmental and over-all production schedules . . . shows, when the product is newly installed, that it is living up to its guarantee. This is what's meant by Veeder-Root Countrol . . . which means an extra usefulness, and new sales-appeal for *any* product.

Now, just one thing more: No matter what *you* make, it will profit you to investigate the possibilities of complete Veeder-Root Countrol. For beyond the scores of *standard* Veeder-Root Counting Devices, there are no limits to the development of *special* devices for any purpose. So *never* say your product can't count . . . until you've talked to a "Counting House" engineer. Write.

The Counting House of Industry



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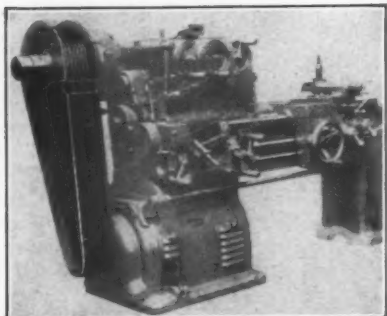
Hartford 2, Connecticut

In Canada: Veeder-Root of Canada, Ltd., Montreal

In England: Veeder-Root Ltd. (New address on request)

3 Ways to Profit with NEOPRENE

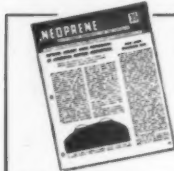
The Du Pont Synthetic Rubber



2 IMPROVE YOUR PRODUCT TO WIDEN ITS MARKET

Example: Vee-belt manufacturers find wider sales by using neoprene in their belts. These give long life under such tough service conditions as (1) soaking in grease or oil vapors and (2) unusually high heat conditions.

The manufacturer on the alert for wider, more diversified (and therefore more stable) markets will often find the use of neoprene in his product accomplishes this purpose.

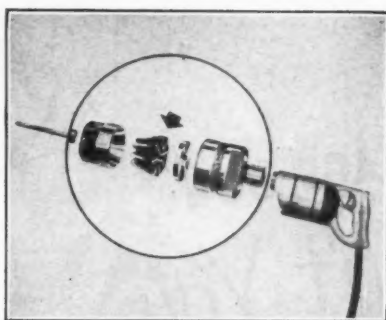


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HERE'S WHY DU PONT NEOPRENE DOES SO MANY JOBS SO WELL!

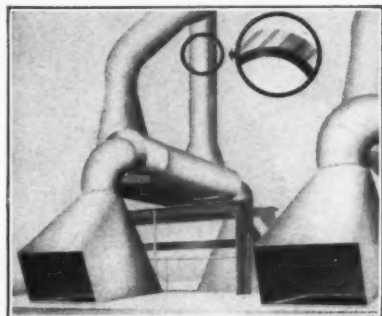
- ★ High tensile strength, resilience, low permanent distortion.
- ★ Tough, durable, resists abrasion and cutting.
- ★ Superior resistance to sunlight, aging, ozone, heat.
- ★ Resistance to deterioration by oils, solvents, chemicals, acids.
- ★ Superior air-retention, low permeability to gases and fluids.
- ★ Special compositions are flame-retarding, static-conducting, flexible at low temperatures.



1 DEVELOP A SUCCESSFUL NEW PRODUCT

Example: This webbing of neoprene makes possible a basic new design for chuck jaws with these features: (1) lower first cost, because of simple design and fast production; (2) wide acceptance, because of positive, accurate grip for wide range of tool sizes; and (3) long service, because neoprene resists oil, heat, flexing and permanent distortion.

Scores of such successful new designs enter the market as engineers combine their imagination with neoprene's unique properties.



3 REDUCE MAINTENANCE COSTS IN YOUR PLANT

Example: Use neoprene coatings to protect fans, ducts and girders from corrosive acid fumes. Thin vulcanized linings applied to ducts and other surfaces which must be protected last many times longer and cut maintenance costs. Neoprene coatings also protect against abrasive-laden air in exhaust systems.

Most industrial rubber products will give you longer service per dollar when made of neoprene—with savings in replacement costs, maintenance labor and shutdown time.

DU PONT NEOPRENE

The Versatile Synthetic Rubber



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Co., New York City, and a National Labor Relations Board election victory (121-80) among 250 research and development engineers employed by the Federal Telecommunications Laboratory in New York City and Nutley, N. J.

The Bankers Trust victory was in the field of U.O.P.W.'s Financial Employees' Guild, which is launching an all-out campaign to unionize Wall Street employees—in opposition to an independent union which has gained a toe-hold there (BW—Aug. 3'46, p65).

The victory at Federal Telecommunications, affiliate of International Telephone & Telegraph Co., was won by U.O.P.W.'s Technical & Scientific Division, formerly C.I.O.'s Federation of Architects, Engineers, Chemists & Technicians (BW—Jan. 12'46, p102).

• **Contract Signed**—This division scored another victory recently when it signed a collective bargaining agreement covering 300 engineers, designers, and draftsmen employed by the Ebasco Services Corp., an affiliate of Electric Bond & Share.

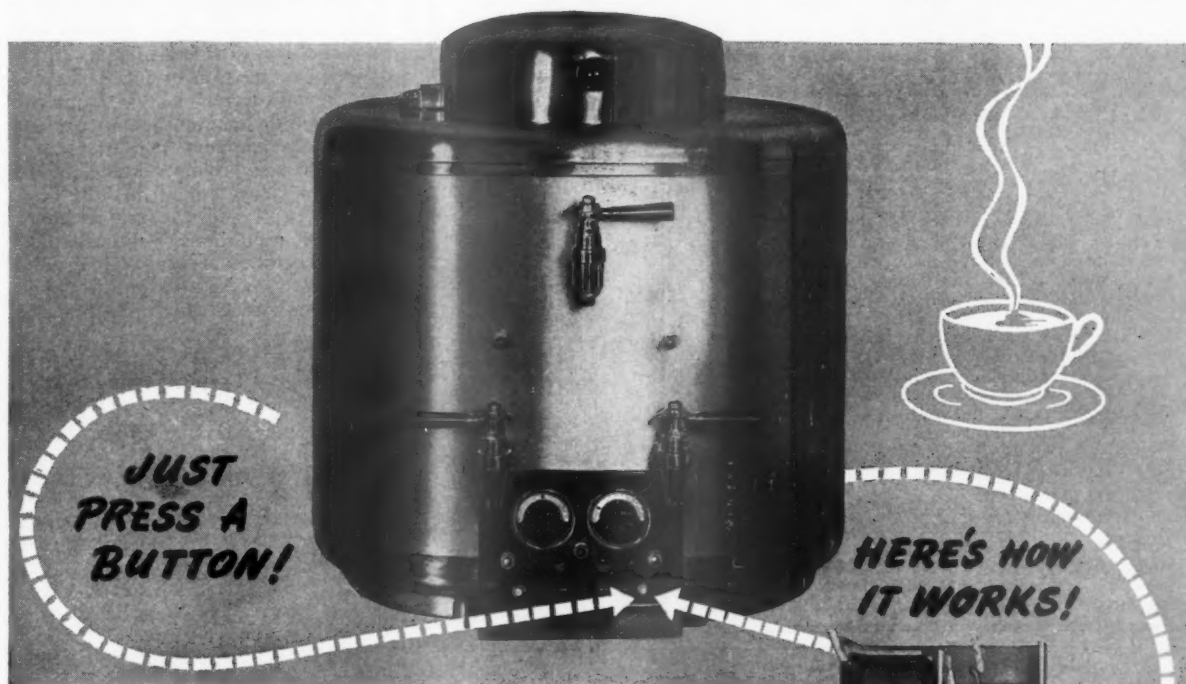
The Ebasco agreement was achieved, according to Lewis Berne, head of the division, when management resistance was overcome by Latin American support (through the friendly, left-wing Latin American Confederation of Labor, ally of C.I.O.) of strike threats by Ebasco technical workers. The Latin union support threatened to extend any domestic strike to twelve Latin American countries where Electric Bond & Share has holdings.

• **Other Union Gains**—U.O.P.W.'s Screen Office & Professional Workers Guild and Screen Publicists Guild last week secured salary increases ranging from \$6 to \$15 a week for 3,000 home-office motion picture employees and screen publicists in New York, Merrill told union directors. The union's Radio Guild joined in the general gains reported to the board with a collective bargaining victory at radio station WMCA—first major break in the radio field in New York City, heart of the industry. The Radio Guild is encountering stiff opposition, however, in organizing efforts at major radio networks.

LITCHFIELD ON UNIONISM

In 1919, P. W. Litchfield, now chairman of the board of the Goodyear Tire & Rubber Co., wrote a small book containing his views on the labor-management relationship. Many contemporary industrialists criticized it as radical and pro-labor. Recently a new book by Litchfield on the same general subject, called "The Industrial Republic," came off the presses. This time it is due to meet a friendlier reception from management, undoubted criticism from most union readers. In the years between,

How Urn-O-Matic Makes Coffee with MICRO SWITCH *Snap-Action*

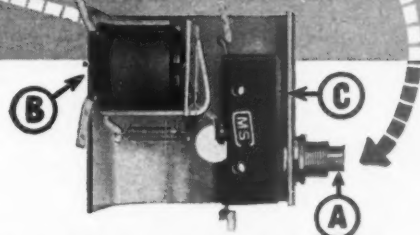


● The Urn-O-Matic made by the All-Lite Manufacturing Company of Chicago has turned coffee-making into a science with the aid of Micro Switch.

Preset for three gallons of water (or any given quantity), all that is necessary is to press a button which starts the water flowing into the coffee extractor. When the three-gallon quantity is reached, the flow of water is automatically turned off. Accurate to "within a teaspoonful" is often used to describe the action.

Micro Precision Switches are used in industry for many other purposes—for safeties, for positioning materials, for machine limit and control, for automatic weighing, counting mechanisms, bottling fluids, and hundreds of others.

You can use Micro Precision Switches on present equipment, or incorporate them for product improvement. It will pay to become fully acquainted with the complete line—just contact the nearest Micro Switch branch listed in the classified section of phone book in principal cities, or write Micro Switch, Freeport, Illinois.



Operator presses starter button (A) and solenoid valve allows water to flow into the coffee extractor. When proper amount of brew is reached, switch actuated by pressure of brewed coffee operates a magnet (B) which resets the Micro Precision Switch (C), thereby closing the valve and stopping the flow of water.

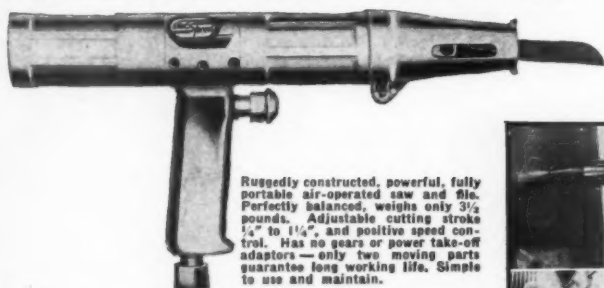


The basic switch is a thumb-size, feather light, plastic enclosed, precision, snap-action switch, Underwriters' listed and rated at 1200 V.A., at 125 to 460 volts, a.c. Capacity on d.c. depends on load characteristics. Accurate reproducibility of performance is maintained over millions of operations. Basic switches of different characteristics are combined with various actuators and metal housings to meet a wide range of requirements.



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Litchfield has distinguished himself as an employer who refuses to let himself be pushed around by the C.I.O.

The Goodyear official bluntly advises employers to recognize that "the principle of unionization in centers of mass employment is here to stay," and to "fight aggressively for lower costs, greater production, and higher pay."

He cautions labor that "an all-powerful labor union is just as bad as an all-powerful corporation or an all-powerful state," and decries labor's failure to "remove the Communist influence and more truly represent the interests of the entire membership." Fuller responsibility by labor, removal of "the thug, the racketeer, and the selfish opportunist" from positions of authority, and union recognition of the economic rights of employers would go far, Litchfield believes, toward creating industrial harmony.

The book devotes one section to a discussion of wages, profits, taxes, government controls, and the author's plan for industrial democracy.

UNEASY MARITIME PEACE

Paralysis caused by a 15-day nationwide maritime strike ended last week when a federal arbitrator, James L. Fly, ordered pay rates of A.F.L. and C.I.O. seamen on all coasts equalized. The arbitration award gave the C.I.O. group the higher rates set for A.F.L. able-bodied seamen in Reconversion Director John Steelman's recent maritime wage order (BW—Sep.14'46,p15).

But with both A.F.L. and C.I.O. longshoremen, A.F.L.'s Masters, Mates & Pilots, and C.I.O.'s Marine Engineers Beneficial Assn. submitting new demands to employers, the peace at midweek was an uneasy one.

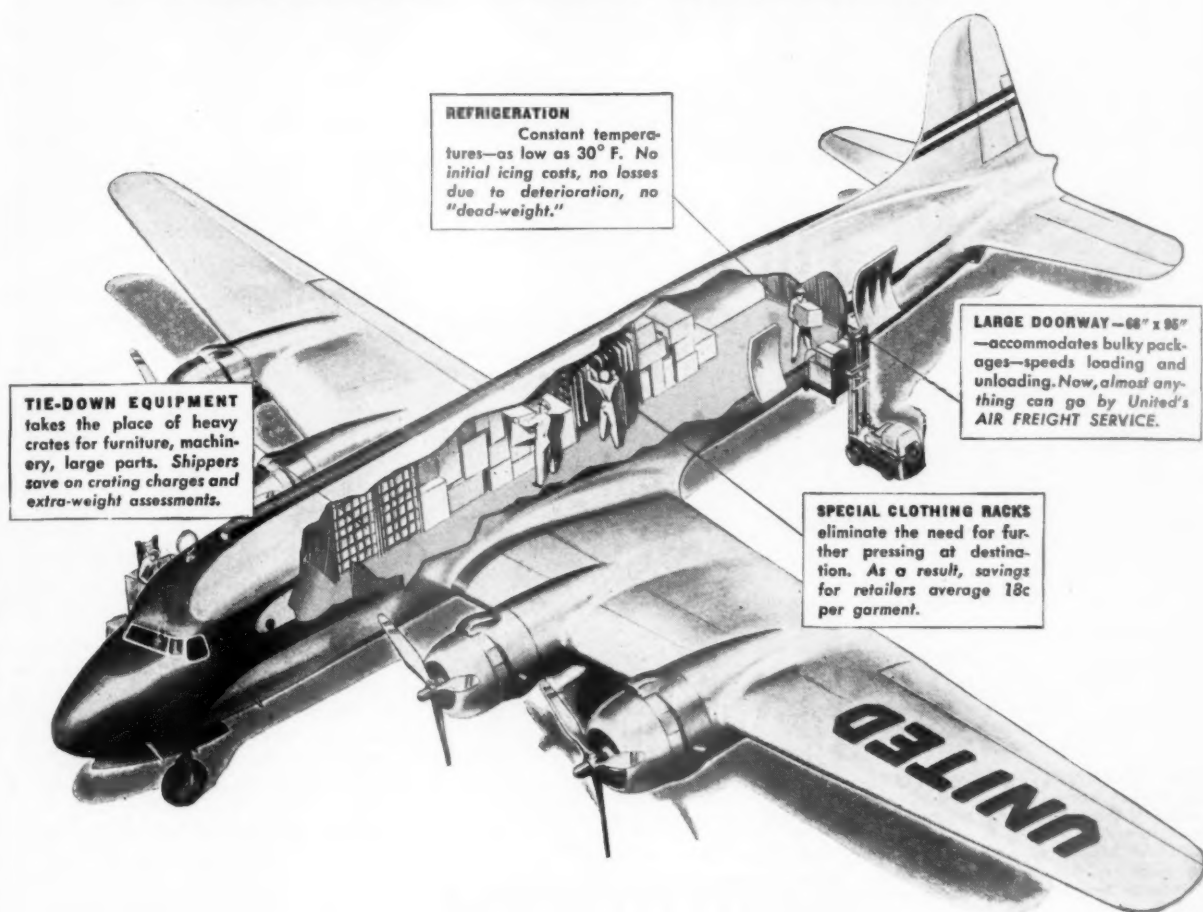
The International Longshoremen's Assn. (A.F.L.) asked an increase in pay from \$1.50 an hour to \$2 an hour, a joint company-union welfare fund to be financed by employers, and a variety of fringe payments for lunch-hour work and handling dangerous cargoes. On the West Coast, the International Longshoremen's & Warehousemen's Union (C.I.O.) demanded a wage increase and a safety code for stevedores. Both I.L.A. and I.L.W.U. warned operators of a strike Oct. 1 unless bargaining progresses favorably.

Since A.F.L. and C.I.O. seagoing unions are pledged to back up strikes of their respective sister unions, any walk-out would quickly assume the broad proportions of the strike just ended.

At midweek, the Labor Dept. saw "good prospects" that the new threats would be ended. Conferences in Washington between labor and management representatives, plus the possibility of a new application of the Steelman maritime wage order, were the basis.

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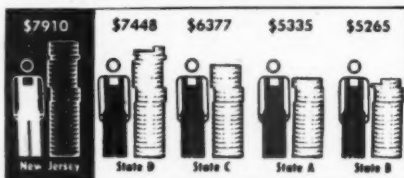
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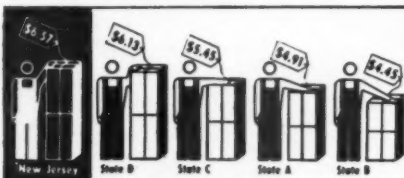
IF YOUR PLANS CALL FOR A BRANCH or plant on the Atlantic Seaboard, get the facts on New Jersey before you decide!

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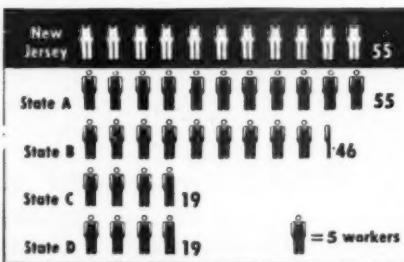
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Wildcat Wave

Disturbances at Detroit, aimed principally at Chrysler, may be prelude to full-scale walkouts in U.A.W. strategy.

Detroit's first major wildcat strike wave in months swept through the city last week, then ebbed quickly. But the breakout—as well as the one settlement—was symptomatic of local disturbances which may eventually prove preludes to full-scale walkouts.

• **Typical of Pattern**—Chrysler Corp. and Briggs Mfg. Co. were the principal targets. At Chrysler, the discharge of a probationary employee precipitated a tie-up at the Dodge Truck Division. At Briggs, the cause was discharge of a shop steward accused of fomenting trouble. This week Ford and Mercury final assembly lines halted in the first wildcat strike since V-J Day as workers protested discharge of a worker who struck a foreman.

The Dodge wildcat, second in two weeks at that plant, fairly typified the pattern of disturbances which precede a major move by the C.I.O. United Auto Workers Union. Chrysler and the union are currently preparing to confer over new wage demands (BW—Sep. 21 '46, p. 98).

Top U.A.W. officials in touch with the Chrysler department kept away from reporters until after they had persuaded the men to go back to work by emphasizing that probationary worker firings were solely the company's jurisdiction. After the men returned this week, the union position was that the unauthorized walkout had been ended as soon as possible.

• **Chrysler Is Target**—The almost simultaneous Briggs tie-up was the latest in a series of wildcat walkouts which have affected that company since early summer.

During that period the traditional militancy of Briggs unionists has been subordinated as much as possible by the higher union strategy of concentrating on Chrysler. Inasmuch as any Briggs strike immediately stops Chrysler operations for lack of bodies, all these Briggs disputes have been halted as quickly as top auto worker officers could get the men back to work.

Before a return could be accomplished this time, however, the Chrysler and Plymouth divisions of Chrysler Corp. were closed down. Packard, which also uses Briggs bodies, was similarly closed.

• **Economic Pressure?**—Union officials, denying the Chrysler disturbances were preliminaries to the forthcoming Chrysler wage conferences, directed atten-



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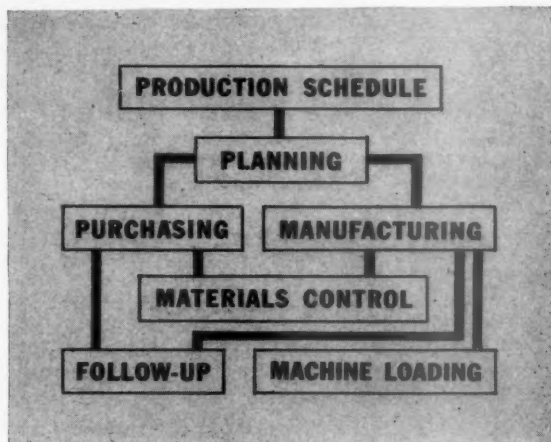
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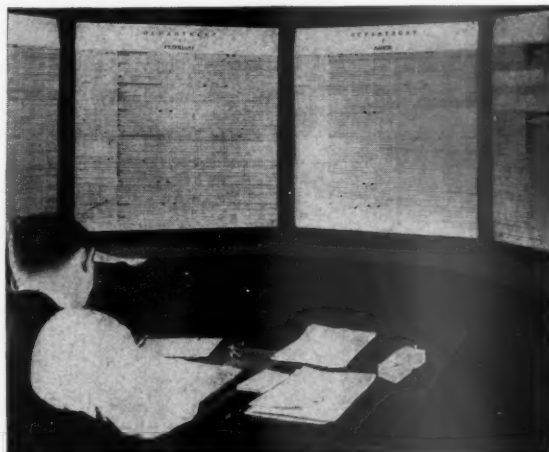
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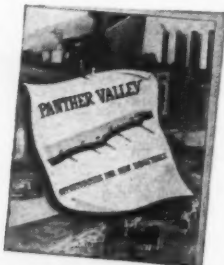
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interim wage hike—17¢ an hour was mentioned unofficially—in all new contracts, and write in a wage reopening clause to cover later adjustments when an over-all policy is determined.

• **The Policy Committee**—Another of C.I.O.'s top unions, the United Rubber Workers, last week placed in the hands of its international policy committee the task of working out strategy for a pay raise and of handling other problems arising from contract negotiations. The policy committee plan, new to U.R.W., was patterned after John L. Lewis' United Mine Workers' negotiating procedure. It was quickly interpreted in Akron as another step toward U.R.W.'s objective of company-wide and possibly industry-wide bargaining.

The rubber union convention suggested no wage increase figure. That was left to the 260-member policy committee which will meet for the first time Oct. 21. But the convention did urge that the union fight vigorously for a 30-hour week. More than half of the rubber plants under C.I.O. contract now have a 36-hour week.

• **Compromise**—Officers and policies of the international union came through convention tests unscarred. L. S. Buckmaster, Akron, was reelected president without opposition.

Buckmaster put an early quietus on left-wing attacks by warning that there is "room in our union for differences of opinion as there is room in the country for differences of opinion." The delegates voted to stand firmly behind C.I.O. President Philip Murray's left-right compromise statement of last May.

The administration bloc in C.I.O.'s Mine, Mill & Smelter Workers headed by Reid Robinson, president of the union, has been under strong attack from a self-styled right-wing faction.

• **Narrow Margin**—At the union's 42nd constitutional convention in Cleveland the fight flared into the open. Voting, however, was close, 423.68 to 399.73 (votes counted on a per capita basis) against a right-wing resolution to bar Communists from union offices.

The tally was even enough to raise antiadministration hopes of defeating Robinson in a membership poll Nov. 4, with the right-wing nominee James J. Leary, Butte, Mont.

The Mine, Mill & Smelter Workers passed a series of resolutions calling for higher wages, elimination of geographical differentials, broadening of overtime provisions, liberalization of vacation provisions, and an eventual 30-hour work-week with no reduction in pay.

A.F.L.'s conventions, without the added excitement of internal contests, produced more news on issues, less local color. Green's attacks on the left-wing labor leaders took different forms. The A.F.L. Brotherhood of Sleeping Car Porters was urged to use its prestige

Precedent in Pittsburgh

Not even during the great steel strike of last winter was Pittsburgh so much a dark and prostrate city as it was this week. The strike of an independent union of utility workers at the Duquesne Light Co. closed the city's big retail establishments and strangled manufacturing activity.

• Some 3,500 workers, leaving their jobs to back up a demand for a 20% wage increase, not only had precipitated what Pittsburgh authorities considered a civic emergency, but had carried to a breaking point the problem inherent in a clash between group and public interest.

An earlier utility strike had been averted when the city got from the Court of Common Pleas an unprecedented injunction. Double-edged, it provided: (1) that employees who work for a utility are quasipublic servants and are restrained from striking, and (2) that utility managements "which fail to render adequate and continuous service by reason of their failure to maintain proper labor relations are not entitled to enjoy their franchises. . . ."

• When the strike occurred this week, the president of the union was sentenced to a year and a day in jail for violating the injunction. His imprisonment may prove to be the most important single development on the 1946 labor front. Calling off the strike is a small matter alongside the fact that government authority has been invoked to break the back of a walkout that hit the community just as hard as it did the parties to the dispute. That example can become a turning point in U. S. labor relations.

to guard American Negroes against being used by Communists in and out of the labor movement as "tools and catspaws for their revolutionary aims." The United Assn. of Journeymen Plumbers & Steamfitters was told simply that A.F.L. provides a bulwark in American labor against all who plead the Communist cause.

• **Independents**—Confederated Unions of America delegates, said to represent 2,000,000 members of unions not affiliated with A.F.L. or C.I.O., condemned Communism, other "isms," and racketeering within the labor movement in a broad attack on the two major unions. C.U.A. urged as immediate goals upward adjustments in pay to keep wages on a par with price increases.

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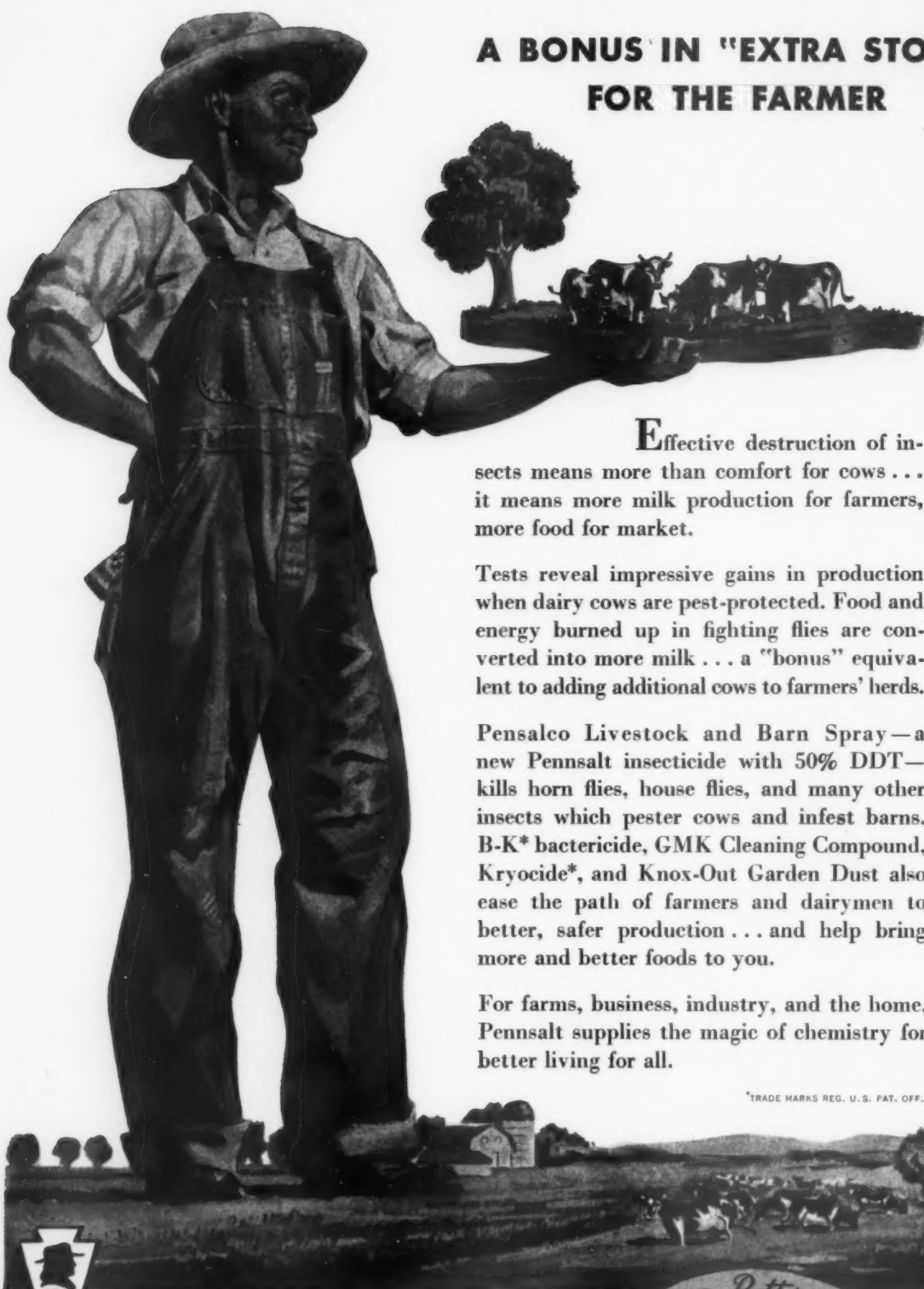


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THE INTERNATIONAL OUTLOOK

BUSINESS WEEK

SEPT. 28, 1946



You can anticipate a period of relative calm on the international diplomatic front, following the Wallace storm.

Secretary of State Byrnes will now have the most diligent support of Washington in the final sessions of the Paris peace talks.

The President will be effectively gagged—at least on foreign policy.

And the Paris meeting will be rushed to a close by Oct. 15 with at least the minimum of accomplishment necessary to rate it a success.

Abroad, events have also taken a momentarily favorable turn.

Stalin, suddenly concerned over the rapidly stiffening attitude and the mounting evidence of increased cooperation among western powers, has indicated that Moscow intends, at least temporarily, to be less bumptious.

This undoubtedly means that Yugoslavia will be less strident in its demands for Trieste, and the shift may bring a temporary lull in the war of nerves along the Greek border.

However, no experienced diplomat believes for a minute that Moscow has had a permanent change of heart.

This latest maneuver is merely a play for time during which the Russians will attempt to regain the advantage in the international diplomatic battle.

Meanwhile, plans of the western powers to build a strongly integrated economic bloc are beginning to materialize.

Last week's Anglo-Argentine economic pact (page 117) is a victory for the forces gambling on freeing world trade instead of allowing it to freeze into wartime restrictive patterns.

While Britain managed to induce Argentina to agree to an extremely low interest on the big debt accumulated during the war, Buenos Aires successfully demanded an immediate loosening of foreign exchange restrictions.

And by agreeing to carry on negotiations for an entirely new trade agreement, both Buenos Aires and London indicated a willingness to play along with Washington's desire for new pacts which will be open to all nations on an equal basis.

Despite its possible adverse effect on immediate exports of U. S. motor and railway equipment, London's second big economic agreement—with Brazil—also sets the stage for an orderly loosening of wartime restrictions.

While Rio de Janeiro officials have agreed to spend backed-up sterling holdings amounting to £50 million (about \$200 million) in Britain for trucks, rail equipment, and machinery, the Brazilians won a commitment from London that all future sterling payments for their goods can be used freely in any market.

London may, in fact, have made a better deal than British manufacturers can handle.

When results of the new agreement reached Britain last week, manufacturers and government officials went into a huddle to see whether £50-million of Brazilian orders could be accepted without reintroducing a new set of special export priorities which might unfavorably prejudice British business already contracted in other markets.

More than the U. S. manufacturers of competitive lines of goods

THE INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

SEPT. 28, 1946

imported by Brazil are affected by the Anglo-Brazilian pact: for instance, the cotton trade.

The fact that Britain made Brazil, rather than the U. S., its chief source of raw cotton this year has given London terrific new bargaining power in its trade pressure on Rio officials.

This probably accounts for Brazil's assurance of financial aid to four British transportation and electric light companies within the country, though that move will probably lead in time to control by Brazilian capital.

•
Anglo-French economic negotiations are undoubtedly a greater worry to Moscow than either the Argentine or the Brazilian agreement.

Behind last week's accord between London and Paris are more important factors than the debt-funding announced in Paris (BW—Sep. 21 '46, p109).

French officials have asked the London government to discuss the possibility of a long-term economic accord which would provide for an allocation of certain industries between the two countries.

Object is to avoid duplication of investment which might prevent one country or the other from going ahead on vast modernization programs in fields where it holds natural economic advantages.

•
While no such far-reaching accord is imminent, Stalin probably realizes now that the alarming drift toward two divergent worlds is driving the French and British toward this kind of economic coordination.

This week's move by Moscow to be conciliatory inevitably is an effort to scotch the wave of fear that another war is inevitable, and to slow the forces that are drawing the western nations into closer relations.

•
Despite ineffective cooperation so far between Washington and U. S. Army authorities in Germany to speed the development of essential foreign trade with the U. S. Zone, plans now under way in Berlin promise to put this business on an efficient and large-scale basis by early spring.

The Munich Fair Grounds are being reconstructed and the present embryonic Export Show will be housed there, with a Visitors' Bureau organized to provide living quarters in a 350-room hotel and transportation for visitors from any countries which can pay for their orders in dollars.

•
American business is still slow to dramatize the natural advantage it has in capturing postwar business in Europe, and other potentially large export markets.

Czechs, Russians, and the British have already outmaneuvered U. S. aircraft producers in booking choice space at the International Air Show to be held in Paris in November.

•
At home, the British are this week entertaining selected buyers brought from a score of foreign countries to the first big postwar showing of consumer goods now available in quantity for export (page 118).

And plans are progressing rapidly for handling—despite present shortages—a huge influx of foreign visitors early next year at the first postwar British Industries Fair.

In spite of limited production, the British automobile industry, by pushing half of its production into export markets, managed to ship more automobiles abroad than have strikebound U. S. manufacturers so far this year.

BUSINESS ABROAD

Anglo-Argentine Pact Signed

Commercial and financial agreement, result of stormy talks, reveals likely pattern of British deals under terms of U. S. loan. Argentine company to control assets of English-owned railways.

After nearly three months of discussion, highlighted by repeated British threats to walk out on the negotiations, Argentina and the United Kingdom have signed a commercial and financial accord. The agreement may set the pattern for other British financial deals to be made during the next nine months under the terms of the United States loan agreement.

At least one section of the U.K.-Argentine pact has particular significance for U. S. business: The formation of a new Argentine company to manage the assets of British-owned railways reflects Argentina's growing economic nationalism.

• **Scope**—The Anglo-Argentine agreement's four parts cover financial payments, British meat purchases, the railroad settlement, and the Anglo-Argentine trade treaty. Under the fourth section, Britain and Argentina merely agree to initiate discussions immediately for a new trade agreement.

The stumbling block to agreement on financial matters was the magnitude of Argentina's sterling holdings and insistence of Peron's government that Britain pay interest on unsettled balances. Although Argentina entered the talks demanding an interest rate of 2½%, and adamantly stuck to this figure to the last, Britain finally agreed to pay only ½% per annum on outstanding accounts, the interest to be freely available to Argentina for settling current accounts.

• **Initial Step**—Within a year of the date on which U. S. Congress approved the British loan, London is compelled to liquidate or readjust its blocked sterling accounts and make current sterling transactions freely convertible to other currencies. The Anglo-Argentine pact marks a first step toward this goal. Trade and financial payments between the Argentine and the sterling area will continue to be settled in sterling, but from the date of the agreement all the sterling that is received by Argentina is to be available for use anywhere it chooses.

However, until Britain concludes a dozen-odd arrangements with other sterling-holding countries, this provision is ineffective, and arrangements are made for conversion to dollars or gold

at the discretion of the Bank of England.

• **Sterling Settlement**—Under the agreement, the amount of sterling balances on Argentine account is first to be officially determined as of the date of the agreement. (These balances are estimated to be about £140,000,000—or slightly more than \$560 million.) Then a part of this sterling will be released (1) to repatriate outstanding Argentine sterling public debts, national, provincial, and municipal; (2) to permit transfer of £10 million to Brazil; and (3) to repatriate British investments in Argentina.

The remainder and new sterling accumulations are to be covered by the gold clause of earlier agreements. Argentina is to be free to use £5 million annually for four years to pay for current transactions.

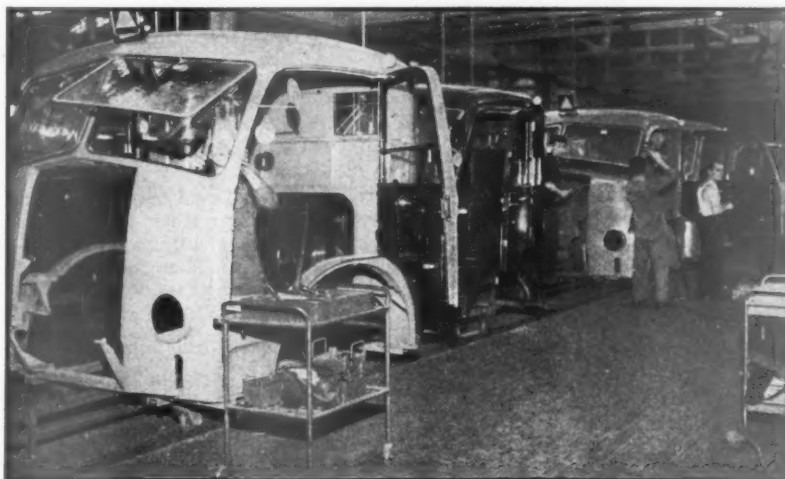
In the unlikely event of Argentina's

having an unfavorable trade balance with the sterling area, the amount of the deficit may be made up from its London accounts. Gold held in London to the account of the Banco Central, amounting to \$17,846,000, is to be released.

• **Meat, Railways**—Britain agrees in the second part of the pact to purchase Argentina's exportable surplus of meat for four years, after the setting aside by Argentina of 17% of the surplus in the first year and 22% in the second year for export to other markets. The price rise over prewar is to be 45%, and adjustments of both price and quota may be made at a later date.

Sale of the British-owned Argentine railways was considered, but Buenos Aires offered only a fraction of what the British mission considered a fair price. In the end, it was agreed that Argentina should form a company, with national and/or private capital, to acquire the assets of the railways in Argentina. The whole of the new company's capital, the amount to be determined by an Anglo-Argentine technical mission, is to be in pesos payable to Britain in full settlement for the assets acquired in Argentina.

• **Pros and Cons**—The company is to be exempt from national and local taxation, and will import equipment duty-free. The Argentine government agrees to invest 500 million pesos during the next five years on railway moderniza-



IN ITALY THE WHEELS BEGIN TO TURN

With some of the scars of war patched up, Italy's Fiat plant at Turin (above) resumes its output of trucks and other vehicles—an important factor in the nation's transport rehabilitation program. With 12,000 workers, the plant is operating with steel from Italian furnaces, whose output is now at half prewar level. A small amount of domestic ore is supplemented by shipments from northern Europe; furnaces are being fired with coal from Sardinia and from the U. S.—through UNRRA. Vehicles are being sold without tires, but they're available from Italian tire makers who have received about 2,000 tons of crude rubber—but no synthetic—through UNRRA channels.

tion. The agreement must be approved by British shareholders and the Argentine Parliament.

From the Argentine point of view, the agreement with Britain has both favorable and unfavorable aspects. Peron has gained control of the British-owned railways—in line with his nationalization plans—but at a cost likely to be greater than Argentines were led to believe their government would pay. The program of repatriating the Argentine's sterling obligations, following Peron's promise to remove foreign economic control from the country, has been forwarded.

But the plan to treble meat prices, once threatened by Peron, fell flat. So did the hope of getting 2½% interest on sterling held in London.

• **British View**—From Britain's standpoint, a favorable start on the liquidation of sterling obligations has been made. No loss of dollar exchange is involved in settling past sterling accumulations, although future transactions must be freely convertible to dollars (and later to other currencies) in line with commitments made under the United States loan.

Last week Britain followed through with a similar set of agreements in Brazil. Winning another victory, Britain persuaded Brazil to commit its sterling holdings in London—amounting to about £50 million (\$200 million)—for purchasing industrial and transport equipment. Arrangements to make fu-

ture sterling balances convertible to dollars, and other scarce currencies will be the subject of talks scheduled to start soon in London.

As in the Argentine pact, Britain has agreed to discuss reorganization of British railway and utilities companies in Brazil, possibly along lines set out in the Anglo-Argentine agreement.

INDUSTRIALIZING INDIA

BOMBAY—British manufacturers are helping India to get started on the long-term industrial program that has been an Indian goal for many years. British Oil Engines (Export), Ltd., has signed an agreement with Kirloskar Oil Engines, Ltd., with a capital of \$1,750,000, to manufacture in this country types of engines produced by the British firms.

The Indian firm will be given access to patents, designs, patterns, fixtures, and manufacturing licenses of any of the engines manufactured in England by Oil Engines, Ltd.; J. H. McLaren, Ltd.; Mirlees, Bickerton & Day, Ltd.; Petters, Ltd.; and Fielding & Platt, Ltd. BOE also has agreed to train Indian engineers at British factories and to supply technicians to assist in establishing manufacture at the Kirloska plant.

Britain seems to have the jump on American manufacturers since it is said that the new firm is the first of its size in India devoted to diesel engine manufacture and entirely under Indian management.

London Exhibit

"Britain Can Make It" show reminds competitors of English record in quality manufactures, entices many foreign customers.

LONDON—England's Wedgwood, Spode, and Staffordshire are synonymous with fine china. Its Axminster carpets, Honiton lace, and Paisley patterns are world-famous for beauty, and its Sheffield cutlery, Smith clocks, and Pilkington glass have carried its flag into almost as many foreign ports as the British Navy.

This week England told the world (and its own people) that it had no intention of relinquishing its traditional position as a No. 1 supplier of top-quality consumer goods.

• **Skillful Setting**—The "Britain Can Make It" exhibition, opened Sept. 24 by King George, is not designed as a trade fair, to provide merely the backdrop for a collection of displays by separate manufacturers. It is an artistic presentation of the best new designs of British quantity-produced merchandise, displayed in imaginative settings.

The venerable Victoria and Albert Museum has been transformed by a team of 70 designers using shapes, colors, and lighting in the latest window-dressing techniques. In the highly charged atmosphere thus created, 5,259 postwar designs of individually consumed products project the single theme that Britain again can make it, and can make it well.

• **Spur to Industry**—The exhibition was conceived a year ago to demonstrate how rapidly British industry could reconvert and how greatly advanced over prewar would be its postwar products. It has been a spur to British manufacturers to make good on both counts, prodding them to rush their peacetime prototypes to completion in time for the exhibit and stimulating their use of the industrial designer in improving the quality of their merchandise.

Americans will not find the designs themselves the significant thing in "Britain Can Make It," for while the general quality of the manufactures is good, there is little that is strikingly new or superior to American postwar products. But they will note the success with which the British have restricted this exhibit to good designs only. And they will be conscious of the effect that this must have on the prospective purchaser from other foreign countries.

• **Eye to Exports**—The noncommercial setting of "Britain Can Make It" does not conceal the fact that it is a definite bid for more export business for Britain. A large attendance of foreign visitors,

Airline Pushes Latin American Hotel Plan

Furthering its plan to build 30 modern hotels costing \$50 million along its far-flung air routes (BW—Sep. 22'45, p. 116), Pan American Airways Corp. has hired Wallace S. Whittaker, former General Motors executive, to run its new hotel subsidiary.

Pan American's spectacular hotel-building scheme derives from the company's conviction that tourist travel to Latin America, chiefly by air, will far exceed expectations and that hotels will be not only vital to tourist comfort but a profitable business investment.

• **Expert Survey**—More than a year ago, when plans were in embryo, Pan Am hired Lucius Boomer, president of New York's Waldorf-Astoria, to make an expert survey of sites and economic potentials. Boomer traveled throughout Latin America with prospective innkeepers Christopher de Groot, traffic manager of Pan American-Grace Airways, Inc., and Howard Dean, vice-president of Pan-

agra and of Pan American World Airways, Inc.

These officials indicated months ago that arrangements had been made to build or acquire hotels in Rio de Janeiro, Montevideo, and Buenos Aires.

• **Growing Need**—Other Latin American cities are also involved in Pan Am's plans. Last spring Howard Dean told Santiago businessmen that Panagra was landing 60 passengers a day, and that when four-motored clippers were put into service the total might rise to 250 or 300 a day—a potential volume of hotel guests considerably beyond the city's present capacity. Plans were discussed to form a joint corporation with local capital to build a hostelry to accommodate from 500 to 1,000 people.

Even if work on the building of new hotels is started immediately, the volume of air traffic to Latin America is sure to exceed first-class hotel accommodations for some years to come.



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all potential customers, has been assured for the exhibition by extensive overseas publicity through the British Information Service offices and British consulates. Possible buyers were assisted in obtaining visas, transportation, and accommodations. As further aids bring buyers and sellers together, the exhibit's catalog lists the name and address of every manufacturer whose goods are on display; special information kiosks spotted throughout the exhibition direct an inquirer to places where he can make contact with the manufacturer; and a staff of proficient linguists is on hand to bridge the language barrier.

To reach those additional prospects who don't get to London for the show, the exhibit "very probably" will go on tour to other countries. Although no definite commitments have yet been made, Scotland, Canada, and Australia have asked that the display be shipped to them intact.

Textile Revival

Japanese output picks up rapidly, may affect U. S. export schedules by 1947. Availability of cotton is major factor.

Japan has now definitely started on the long road to revival of its textile industry, an important factor in prewar world trade.

• **Fourth of Prewar Peak**—Production of cotton broad woven goods during the year ending next June 30 may reach 1,400,000,000 sq. yd.—about one-fourth of Japan's prewar peak. The country will export about 800,000,000 sq. yd.—or one-third of the prewar top—it is claimed in reports received by the U. S. Dept. of Agriculture.

Since the first boatload of American raw cotton arrived in Japan early in June we have sent about 650,000 bales. Japanese production of cotton textiles in the third quarter of this year will amount roughly to 140,000,000 sq. yd., of which 100,000,000 sq. yd. have been earmarked for export to China, the Philippines, and other Far East areas. The remainder probably will enter home markets. A 50% rise in production is possible in the fourth quarter, depending on availability of raw materials.

• **May Affect U. S. Exports**—While Japanese production is not likely to affect the American market, because the cloth produced is a coarse variety (osnaburgs, drills, jeans, etc.), developments may have some bearing on the amount of U. S. textiles set aside for export in 1947.

Under present agreements, approximately 10% of our textile production—800,000,000 to a billion yards of cotton

French Radio Commercials?

PARIS—American-style sponsored radio programs for France are being planned by a new company made up of ex-GI's plus French businessmen and technicians. The venture was suggested by the local popularity of the U. S. Army's American Forces Network programs.

• On Sept. 15, the new firm—known as International Radio Co.—inaugurated three transcribed half-hour music programs over Paris stations. A Hollywood gossip column and a soap opera are planned for early October. American sponsors for the programs are being sought through the New York agency, Carr & Stark, to whom copies of transcriptions are being sent.

International Radio Co. also produces five-minute spots in English for use by American radio stations, featuring French fashions, cooking, and wine.

• President of the new company is Philip Lefebvre, secretary-general of the swank Paris Racing Club. Vice-president is Henry S. White, formerly public relations officer of the U. S. Western Base Command. Their Paris recording studios are those formerly used by the now-defunct American Forces Network.

broad woven fabrics—is set aside for export.

Increasing production in Japan could reduce this percentage, although final determination would be at the discretion of the Civilian Production Administration. This discretionary power, however, will automatically end with the expiration of the second war powers act, Mar. 31, 1947. While cotton exporters favor continuation of the set-aside policy or even an increase in the percentage, the majority of mill owners prefer to be rid of the obligation.

• **Barter Contract**—One important use for Japanese textiles, from the U. S. standpoint, is noted in the recently negotiated contract between the Dept. of Agriculture and the Netherlands East Indies for procurement of copra (dried coconut meat) to augment our supply of vegetable oils, especially for use in soaps.

Under the agreement, the U. S. will get 300,000 tons of copra during the year, which is close to full production, with payment in trade goods instead of money. In this case, payment will be made largely in Japanese cotton textiles. The transaction will be handled through the U. S. Commercial Co.

CANADA

Transport Crisis

Freight car shortage more serious than at any time during war. Priority system for vital freight is being studied.

OTTAWA—Long distance wires between Ottawa and Washington hum almost every day now with queries about freight cars, as the Canadian Transport Controller, B. S. Liberty, and the U. S. Office of Defense Transportation try to hurry one another into returning empty cars across the border.

• **Priority System Needed**—At the moment, the car crisis has reached cabinet level in Ottawa. Liberty anticipates serious difficulties unless priorities for certain types of freight are established, but no one seems to know just where to begin. Coal must be moved for winter heating. Wheat must be moved to seaboard to fill European relief requirements. Lumber must be moved to complete houses for winter occupancy.

The shortage of cars is more acute than at any time during the war. It arises mainly from the fact that railroads worked their equipment to the limit throughout the war and got a minimum of replacements. Now over-age equipment is giving out.

• **Export Came First**—Canadian car plants jumped at first postwar orders from overseas countries for rolling stock. The railway companies and the government tacitly approved, figuring that it was good business.

Now export orders taken on within the last two years have just about been completed. But the car plants still can't start work for Canadian roads because of the strike which has almost completely halted operations in Canada's three major basic steel companies ever since July.

• **Incentive to Speed**—Last week Liberty slapped penalties on users of freight cars for delays in unloading. In addition to demurrage, the railways are required to charge \$1 for the first day a car is held beyond 48 hours, \$1 for the second day, nothing for the third day, \$5 for the fourth day, and \$10 for the fifth and succeeding days. United States lines imposed similar penalties in 1943, lifted them after the war's end, and recently reinstated them.

• **No Help From U. S.**—In previous temporary car shortages Canada has been able to borrow from the U. S. This time no cars can be spared. The result is that some freight is not going to be moved. The question is: What will wait?

ADVERTISERS IN THIS ISSUE

Business Week—September 28, 1946

ACME STEEL CO.....	34	KEYSTONE STEEL & WIRE CO.....	84
Agency—Leo Burner Co., Inc.		Agency—Mace Adv. Agency, Inc.	
AIR-SPEED TOOLS CO.....	106	KIRKIN PIPE CO.....	97
Agency—Anderson Adv. Agency		Agency—Pacific National Adv. Agency	
AMERICAN CHAIN & CABLE CO., INC.....	87	KOPPERS CO.....	4th Cover
Agency—Reinecke, Meyer & Finn, Inc.		Agency—Ketchum, MacLeod & Grove, Inc.	
AMERICAN CYANAMID CO.....	113	LAWRENCE WAREHOUSE CO.....	94
Agency—Hazard Advertising Co.		Agency—L. C. Cole	
AMERICAN MUTUAL LIABILITY INS. CO.....	3	LEBANON STEEL FOUNDRY.....	102
Agency—McCann-Erickson, Inc.		Agency—Foltz-Wessinger, Inc.	
AMERICAN TELEPHONE & TELEGRAPH CO.....	46	MACON AREA DEVELOPMENT COMMISSION.....	31
Agency—G. M. Bradford Co.		Agency—Bruce Moran & Co.	
THE W. H. ANDERSON CO.....	55	MANNING, MAXWELL & MOORE, INC.....	8
Agency—Lang, Fisher & Stashower, Inc.		Agency—Briggs & Varley, Inc.	
ASSOCIATION OF AMERICAN RAILROADS.....	27	MARSH STENCIL MACHINE CO.....	120
Agency—Benton & Bowles, Inc.		Agency—Krupnick & Assoc.	
ATLAS POWDER CO.....	101	MASSACHUSETTS DEVELOPMENT COMMISSION.....	24
Agency—The Altkin-Krnett Co.		Agency—John C. Dowd, Inc.	
BABCOCK & WILCOX CO.....	63	THE MASTER ELECTRIC CO.....	45
Agency—O. S. Tyson Co., Inc.		Agency—Superior Advertising, Inc.	
BAKER INDUSTRIAL TRUCK DIVISION OF THE BAKER RAILING CO.....	47	MCGRAW-HILL BOOK CO.....	40
Agency—G. M. Bradford Co.		MICRO SWITCH DIVISION OF FIRST INDUSTRIAL CORP.....	105
BEARING MANUAL, INC.....	90	Agency—Hamilton Adv. Agency, Inc.	
Agency—The Caples Co.		MILWAUKEE DUSTLESS BRUSH CO.....	81
BRODERICK & BASCOM ROPE CO.....	82	Agency—Al Herr Adv. Agency	
Agency—Watts Adv. Agency		MINNEAPOLIS STAR TRIBUNE.....	122
BUNDY TUBING CO.....	12	Agency—Batten, Barton, Durstine & Osborn, Inc.	
Agency—Brooke, Smith, French & Dorrance, Inc.		MONSANTO CHEMICAL CO.....	41
BURROUGHS ADDING MACHINE CO.....	23	Agency—Gardner Advertising Co.	
Agency—Campbell-Ewald, Inc.		MOODY'S INVESTORS SERVICE.....	90
BYRON WESTON CO.....	66	Agency—James J. McMahon, Inc.	
Agency—Walter B. Snow & Staff, Inc.		THE HERMAN NELSON CORP.....	32
THE CARPENTER STEEL CO.....	56	Agency—L. W. Ramsey Co.	
Agency—Beaumont, Heller & Sperling, Inc.		NEW HAMPSHIRE STATE PLANNING & DEVELOPMENT COMM.....	98
CARRIER CORP.....	51	Agency—Charles W. Hoyt Co., Inc.	
Agency—N. W. Ayer & Son, Inc.		NEW JERSEY COUNCIL.....	108
CERANESE PLASTICS CORP.....	96	Agency—United Advertising Agency	
Agency—Ellis Advertising Co.		NEW YORK STOCK EXCHANGE.....	89
CF AMBERLAIN ENGINEERING CORP.....	50	Agency—Gardner Advertising Agency	
Agency—Ralph Gross, Adv.		NORFOLK & WESTERN RAILWAY CO.....	33
CLUES.....	120	Agency—Houck & Co.	
DALMO VICTOR.....	122	NORTHWESTERN MUTUAL FIRE ASSOC.....	120
Agency—Jackson		Agency—Hony-Cooper Co.	
DAZOR MANUFACTURING CORP.....	61	OLIN INDUSTRIES, INC.....	40
Agency—Watts Adv. Agency		Agency—D'Arey Adv. Co., Inc.	
DICTAPHONE CORP.....	28	PANTHER VALLEY INDUSTRIAL COMMISSION, INC.....	112
Agency—McCann-Erickson, Inc.		Agency—Lewis & Giltman	
HENRY DISSTON & SONS, INC.....	64	PARAPHONE HEARING AID, INC.....	122
Agency—Geare-Marston, Inc.		Agency—Campbell-Sanford Advertising Co.	
DITTO, INC.....	70	PENNSYLVANIA RAILROAD.....	11
Agency—W. W. Garrison & Co.		Agency—Al Paul Lefton Co., Inc.	
DRAGO CORP.....	29	PENNSYLVANIA SALT MFG. CO.....	114
Agency—Cabot & Co., Inc.		Agency—Geare-Marston, Inc.	
E. I. DU PONT DE NEMOURS & CO.....	53, 104	PITNEY-BOWES, INC.....	54
Agency—Batten, Barton, Durstine & Osborn, Inc.		Agency—L. E. McGiverna & Co., Inc.	
DUREZ PLASTICS & CHEMICALS, INC.....	67	PORTLAND CEMENT ASSOC.....	26
Agency—Addison Vars, Inc.		Agency—Boche, Williams & Cleary, Inc.	
EASTMAN KODAK CO.....	79	PRESSED STEEL TANK CO.....	62
Agency—J. Walter Thompson Co.		Agency—The Buchen Co.	
ELECTRICAL TESTING LABORATORIES, INC.....	92	PYRENE MFG. CO.....	92
Agency—Foster & Davies, Inc.		Agency—Frank Best & Co., Inc.	
ELECTRO-MOTIVE DIV. OF GENERAL MOTORS CORP.....	85	THE RAULAND CORP.....	2
Agency—Kudner Advertising, Inc.		Agency—George Brudaker Adv.	
EVANS CHEMICALS, INC.....	38	RELANCE ELECTRIC & ENGINEERING CO.....	57
Agency—Norman D. Waters Associates, Inc.		Agency—Meldrum & Fawcett, Inc.	
FACTORY.....	59	REMINGTON RAND, INC.....	111
THE FAPRIN BEARING CO.....	3rd Cover	Agency—Addison Tarr, Inc.	
Agency—Horton-Noyes Co.		REZNOR MFG. CO.....	97
FAIRCHILD ENGINE & AIRPLANE CORP.....	6	Agency—Meek & Thomas, Inc.	
Agency—Cecil & Presbrey, Inc.		ROBBINS & MYERS SALES, INC.....	100
FIRESTONE TIRE & RUBBER CO.....	39	Agency—Erwin, Wasey & Co., Inc.	
Agency—Sweeney & James Co.		JOHN A. ROEBLING'S SONS CO.....	88
FORD MOTOR CO.....	95	Agency—Richard & Co., Inc.	
Agency—J. Walter Thompson Co.		RUSTLESS IRON & STEEL CORP.....	43
THE FOXBORO CO.....	109	Agency—St. Georges & Keyes, Inc.	
Agency—Horton-Noyes Co.		JOS. T. RYERSON & SON, INC.....	25
FRIDEN CALCULATING MACHINE CO.....	42	Agency—Audrey Moore & Wallace, Inc.	
Agency—George L. Lynn, Adv.		S. K. F. INDUSTRIES, INC.....	37
FULTON SYLPHON CO.....	86	Agency—Geare-Marston, Inc.	
Agency—The Griswold-Ehrlmann Co.		STONE & WEBSTER, INC.....	91
GENERAL AMERICAN TRANSPORTATION CO.....	65	Agency—Doremus & Co.	
Agency—Fitzgerald Adv. Agency		SUN CHEMICAL CORP.....	49
GENERAL ELECTRIC CO., AIR COND. DEPT.....	110	Agency—J. M. Mathen, Inc.	
Agency—Newell-Emmett Co.		SUN OIL CO.....	30
GENERAL ELECTRIC CO., LAMP DEPT.....	14	Agency—Gray & Rogers	
Agency—Batten, Barton, Durstine & Osborn, Inc.		THE TEXAS CO.....	35
GLOBE HOIST CO.....	81	Agency—Newell-Emmett Co.	
Agency—Fairall & Co.		THERMOID RUBBER, DIVISION OF THERMOID RUBBER CO.....	48
THE B. F. GOODRICH CO.....	1	Agency—The Altkin-Krnett Co.	
Agency—The Griswold-Ehrlmann Co.		THOMSON INDUSTRIES, INC.....	102
THE HINDE & DAUCH PAPER CO.....	52	Agency—The Kotila Co.	
Agency—Howard Swink Adv. Agency		UNION METAL MFG. CO.....	48
HOTEL LENNOX.....	122	Agency—The Griswold-Ehrlmann Co.	
Agency—Gardner Advertising Co.		UNITED AIR LINES.....	107
HOTELS STATLER CO., INC.....	99	Agency—N. W. Ayer & Son, Inc.	
Agency—Young & Rubicam, Inc.		VAUGHAN MOTOR CO.....	36
HUPP CORP.....	93	Agency—Houck & Leland	
Agency—McCann-Erickson, Inc.		VEEDER-ROOT, INC.....	103
IOWA DEVELOPMENT COMMISSION.....	44	Agency—Sutherland-Abbott	
Agency—Ambro Adv. Agency		WARNER & SWASEY CO.....	2nd Cover
JOHNSON STEEL & WIRE CO., INC.....	112	Agency—The Griswold-Ehrlmann Co.	
Agency—John W. Odlin Co., Inc.		WASSER ORGANIZATION.....	123
KEARNEY & TRECKER CORP.....	80	Agency—Needham & Grohmann, Inc.	
Agency—Klaus-Van Pietersom-Dunlap Assoc., Inc.		WILLSON PRODUCTS, INC.....	8
KEASBEY & MATTISON CO.....	4	Agency—Beaumont, Heller & Sperling, Inc.	
Agency—Geare-Marston, Inc.		WORTHINGTON PUMP & MACHINERY CO.....	83
THE KELLY-SPRINGFIELD TIRE CO.....	119	Agency—James Thomas Chirug Co.	
Agency—Compton Advertising, Inc.		YOUTH GROUP.....	69
		Agency—Walter M. Sweetfager	

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THE MARKETS (FINANCE SECTION—PAGE 81)

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	142.5	147.4	163.2	154.2
Railroad	45.8	49.3	56.6	58.3
Utility	73.9	77.1	84.1	73.6
Bonds				
Industrial	122.3	123.6	124.7	121.8
Railroad	112.2	114.7	117.5	114.6
Utility	113.5	115.4	115.6	115.7

Data: Standard & Poor's Corp.

Spotting the Rallies

Wall Street was concentrating this week on the precarious business of trying to spot the rallies in a market that fundamentally is headed downward.

The rush of liquidation that drove stock prices down an average of 25% below their bull market highs has spent itself, at least temporarily. At midweek there were signs of a brisk secondary rebound. But at present, few of the stock market's burnt children have any intention of sticking their hands back into the fire.

• **Short-Lived Rally**—Thursday, Sept. 19, was a bad day for bulls who had begun to let their horns grow during the preceding week's lull (BW—Sept. 21 '46, p114). The averages, which had been shaping up for a test of the Sept. 10 lows, punched their way through on heavy volume, giving a new bear market signal. Dow-Jones industrials closed that day at 165.17; rails closed at 46.11.

After that, things began to look a trifle better. The market rallied smartly

on Friday, sparked as much as anything by the news that Secretary of Commerce Henry A. Wallace had been booted out of the Cabinet (page 7). But purely political news always is a flimsy excuse for marking up stock prices. Monday's session erased most of the gain in the industrial list and slapped the rails down to a new low of 45.69.

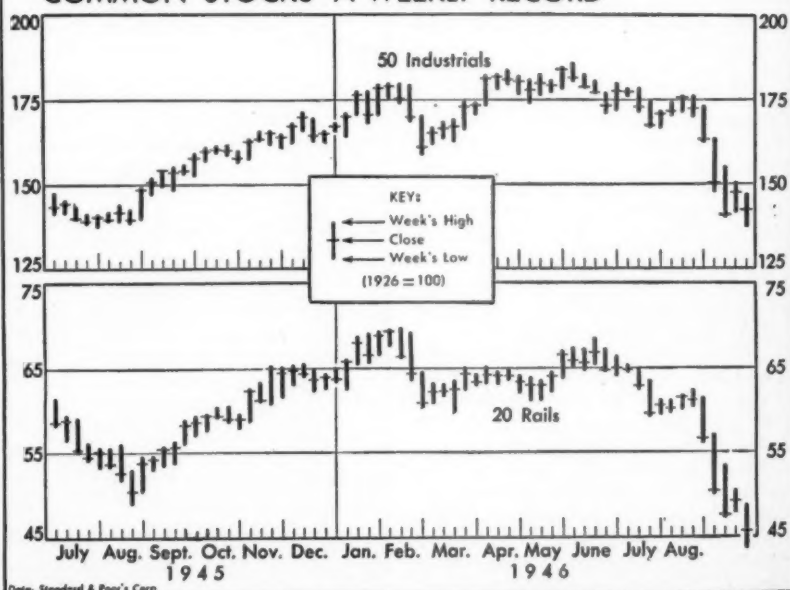
• **Bullish Theory**—Tuesday afternoon, a somewhat more promising rally got under way, and on Wednesday a burst of buying sentiment ran industrials up 4.06 points to 172.95. Rails also contrived to gain 0.86 points and closed at 48.00.

Bulls are making much of the fact that the market rallied after setting its new lows instead of drowning in another wave of liquidation. They would like to think this means that it has established a more or less stable base for itself in the 165-170 neighborhood and that the next important move will be upward.

In prewar markets, a good-sized secondary rally would have been almost a sure bet at about this time. The industrial average has spilled some 40 points without any interim recoveries that are worth mentioning. According to orthodox market theory, the stage should be set now for a rebound that would take prices anywhere from twelve to 20 points back over the ground they have lost.

• **Not According to Hoyle**—The trouble is that the present market isn't working on orthodox theory, and so far all attempts at a rally have had their heads

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

chopped off almost at the start. After four years of rising prices, the market is filled with stockholders who want to take their profits and get out. Each new rally runs into a flock of sell orders placed just above the previous market, and the 100% margin rules cut the buying power of bargain hunters who might be willing to take up these offerings on credit.

On top of everything else, there's the tax question. In a bull market, when the basic price trend is upward, a buyer can be fairly confident of hanging onto his stock for six months and qualifying his profits for taxation as a capital gain. In a bear market, he knows that he probably will have to get in and out quickly, which means that any winnings will be taxed as regular income. For anyone in the upper income brackets, that exigency takes a lot of the fun out of trying to play bear market rallies.

Where the Ax Fell

Bear markets have their leaders on the way down just as bull markets do on the way up. Here is a cross-section of the current market slump, as shown by the behavior of Standard & Poor's indexes of the more popular groups between the end of May (the approximate peak of the now defunct stock boom) and last week:

	Last Week in May	Week Ended Sept. 18	% De- cline
Industrial	163.2	126.3	22.6
Rails	164.2	116.0	29.4
Utilities	132.3	109.2	17.5
Agric. machinery..	160.5	121.1	24.5
Aircraft mfg.....	153.3	125.2	18.3
Autos	156.8	108.7	30.7
Auto tires.....	299.0	232.0	22.4
Alcoholic bev.....	502.9	397.2	21.0
Chemicals	152.5	118.5	22.3
Electrical equip....	127.6	97.5	23.6
Finance	110.8	83.9	24.3
Dairy products....	244.7	203.7	16.8
Meat packing.....	200.0	154.1	23.0
U. S. gold mining..	91.4	64.8	29.1
Machinery	154.6	112.6	27.2
Metal fabricating..	178.2	114.7	35.6
Mining & smelting..	113.0	83.6	26.0
Office & bus. equip.	164.2	128.9	21.5
Paper	328.6	248.9	24.3
Petroleum	169.8	139.8	17.7
Printing & pub....	279.1	162.5	41.8
Radio	191.9	134.4	30.0
Railway equip.....	153.5	110.9	27.8
Dept. stores.....	334.8	238.1	37.8
Food chains.....	248.6	183.4	26.2
Shipbuilding	244.7	181.6	25.8
Shoes	144.7	111.9	22.7
Steel	157.1	122.2	22.2
Sugar	140.0	114.5	18.2
Textiles	312.0	230.5	26.1
Motion pictures....	330.6	252.1	23.8
Tobacco products..	105.1	84.7	19.4

Viewing the Body

While Wall Street tries to figure out what all these various factors will do to the averages over the next few weeks, the Securities & Exchange Commission is preparing to hold an elaborate post-mortem on the disastrous market break of Sept. 3, the day industrials dropped 10.51 points.

SEC questionnaires have gone out to members of the New York Stock Exchange, asking them to list all round-lot purchases and sales that they handled on Sept. 3. From these data, SEC will try to reconstruct the break in terms of 15-minute averages and determine just who sold what.

• **Traders' Analysis**—Without waiting for the SEC report, traders have been running some studies of their own on the anatomy of the bear market. A quick look at the indexes of various groups of stocks gives a fair idea of which were the bellwethers—or Judas goats—in the decline.

Printing and publishing stocks showed the biggest drop of any of the leading groups covered by Standard & Poor's indexes, but this was more or less a freak. More important in its effect on the rest of the market was the persistent weakness in rails and motors.

Rails, suffering from the doleful evidence presented in the Interstate Commerce Commission rate hearings, again and again have dragged the market down when industrials showed signs of perking up. Railway equipment stocks were under pressure for the same reason.

• **Motor Trouble**—The market's sour view of automobile stocks seems to have had a double-headed cause. On one hand, traders fear the big motor companies are due for more labor trouble and more setbacks in production. On the other, they are afraid that the prices on new cars will cut the heart out of the big backlog of demand.

The stock market, remembering 1937, is particularly touchy about softness in the motors. At the same time that it marks down the automobile stocks, it begins to worry about steel, machinery, and other industries that supply the automobile producers.

• **Basic Overhauling?**—The heavy discounting of department store stocks stemmed partly from worries about overstocking, partly from the fear that as more hard goods become available consumers will turn a cold shoulder to the soft goods that have been accounting for much of retail profits.

One thing that impresses Wall Street, however, is the fairly close bunching of the percentage declines. With only a few exceptions they range from 20% to 30%. This is one of the things that convince old hands that the sudden plunge of prices wasn't accidental but a fundamental revaluation of equities.



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THE TREND

STEEL—A CASE OF COCKEYED CONTROL

If steel users come anywhere near to trying to carry out their present production plans, there will not be nearly enough steel to go around for the next nine months, either in general or in certain crucially important forms. This is the main burden of a Report to Executives, beginning on page 71, which details the supply and demand outlook for this most basic industrial product.

Because of limitations of space, however, the report does not dwell at length on the key part that price control has played and continues to play in fostering shortages of extremely important forms of steel. Nor does it indicate the shortcomings of present arrangements to secure relief from this state of affairs. Hence this space is devoted to an elucidation of these difficulties, by way of supplementing the Report to Executives.

• **Concrete reinforcing bars, railroad track accessories, spring wire for automobile seat cushions, baling wire, and nails are among the critically important steel products which OPA price regulations have helped to make scarce at various times during recent months. The general process involved has been to maintain a price ceiling on these products which has made production of them relatively unprofitable and thus shunted production into other and more profitable forms of steel. The process is well illustrated by the case of baling wire, a product of absolutely crucial importance to the producers of commercial hay.**

Early this year you could see the prospect of a grave shortage of the wire required to get the commercial hay crop baled. It developed that this shortage, due also to the coal and steel strikes, was being intensified by an OPA regulation requiring wire producers to sell their product to fabricators of baling wire at \$4 per ton less than the price that the same product was sold for other uses. Result—more wire for other uses, less for baling wire. When OPA was finally persuaded to wipe out the differential it would have been too late to save much of the commercial hay crop except for emergency action by the Civilian Production Administration in channeling surplus wire supplies to baling wire makers, and emergency production by manufacturers.

• **A price at which it is profitable to manufacture nails has now been established by OPA and the shortage of nails, which so desperately plagued the emergency housing program, is on the way to being a thing of the past. For months, however, price ceilings for nails made it impossible for producers to pay the going price for nail wire and still pay out by sales of nails. The result was that abundant facilities for nail manufacture were idle while home builders were screaming for nails, and wire was going into far less crucial products. When the OPA went**

about relieving the squeeze on nail production created by its price ceiling, it nibbled at the problem instead of taking an adequate bite. It granted a \$7-per-ton increase in March, another \$7-per-ton increase in May, and a \$10-per-ton increase in June, aggregating about a 30% price increase altogether, and thus tortuously prolonged instead of solving the price-production problem.

• **It is not to be inferred from this recital that we believe that the OPA steel price controllers are sitting around in a sort of Boris Karloff manner and diabolically calculating how, with some suitable ceiling jiggering, they can create more shortages of critical steel products. On the contrary, we conceive the basic difficulty to be that they are dealing with forces so complex and so dynamic that they simply cannot be adequately handled by what is necessarily a lumbering national control system directed from Washington.**

There is every reason to believe that, if left free from the ministrations of OPA, the forces of the market would apportion steel among the various bidders for it much more expeditiously as well as much more effectively. Such a release might also have the effect of inspiring the steel industry to increase its capacity to produce certain key types of steel. The shortage of such capacity now seems to some big users of steel as likely to put a decisive brake on what they believe a proper degree of postwar industrial expansion.

• **There is far less reason to believe, however, that any prompt release of steel from price control is in prospect. Under the present price control act such a release depends primarily upon a demonstration that "the supply thereof exceeds or is in approximate balance with the demand thereof (including appropriate inventory requirements)." The meaning which the Decontrol Board will give to that phrase still remains largely to be determined by a series of decisions in specific cases. In the meantime, it remains quite clear, as indicated in the Report to Executives, that there is a lot larger demand for steel than can be met with existing supplies.**

There are at least two good reasons, however, for taking a bold course and decontrolling steel prices, even before a conventional balance between supply and demand has been struck. One is that if steel prices should start to run away, a development which we would doubt very much would eventuate, the price control act contains a recapture clause which would permit them to be brought back under control promptly. The other is that, so long as price control of steel is continued, there is every reason to anticipate a continuing series of artificially manufactured shortages, bottlenecks, and distortions of production to hamper and harass the full development of our postwar industrial potential.

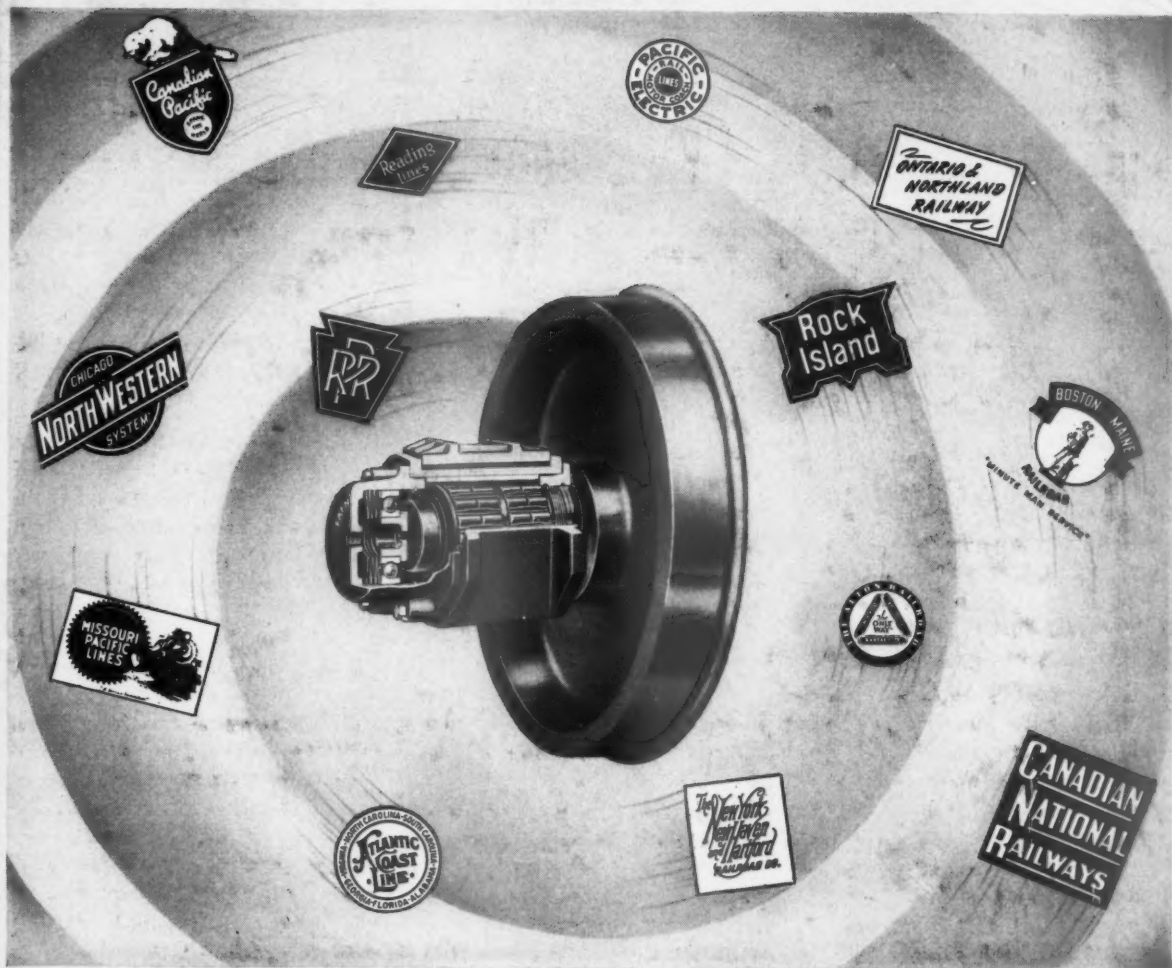
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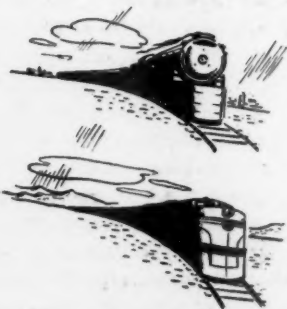
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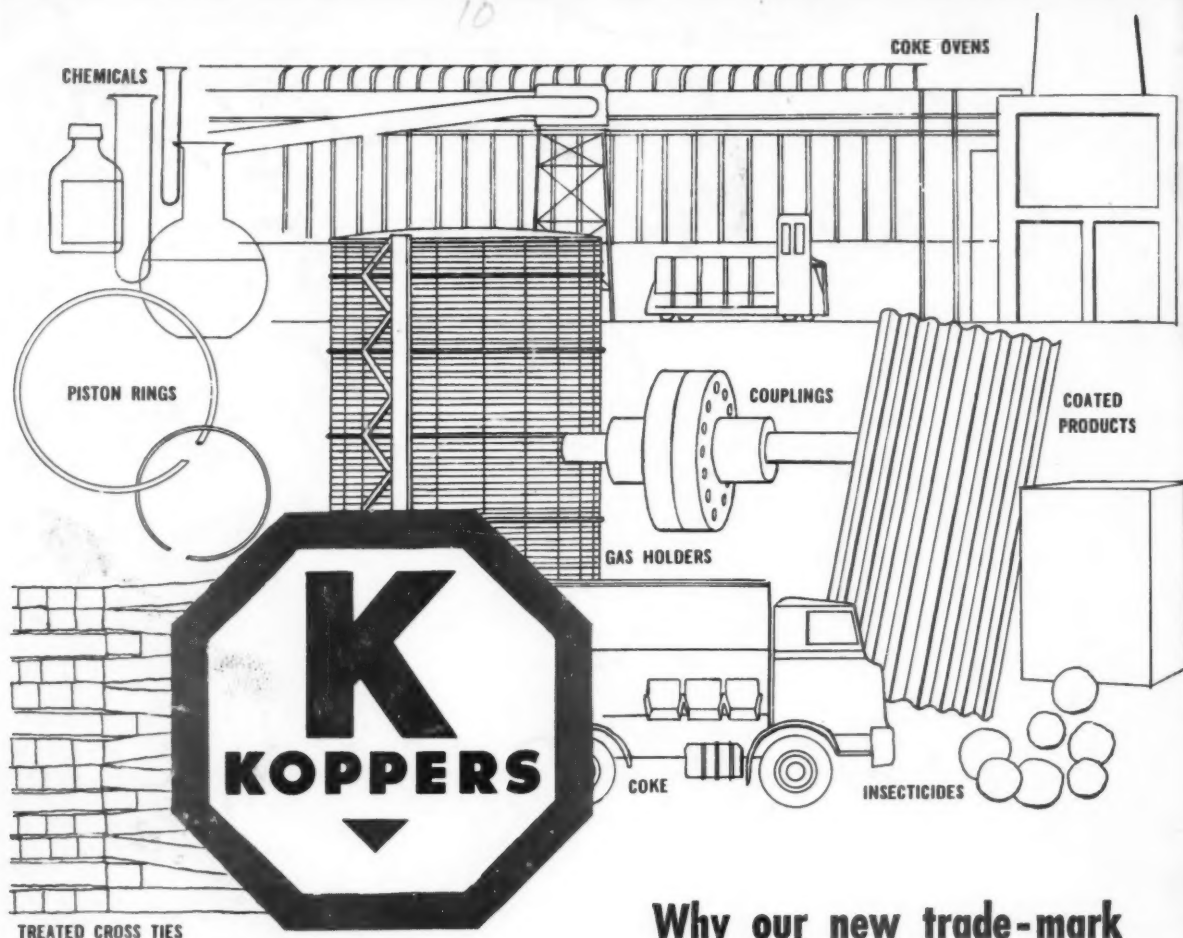
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